PACIFIC
ENVIRONMENTAL
GROUP, INC.

January 7, 1993
Project 330-06.05

Mr. Michael Whelan
ARCO Products Company
P.O. Box 5811
San Mateo, California 94402

1/12/94
Slight odor noted in well MW-1S which was ND on TPH/BTEX. -JS

Re: **Quarterly Report** - Third Quarter 1993
Remedial System Performance Evaluation
ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Dear Mr. Whelan:

This report, prepared by Pacific Environmental Group, Inc. (PACIFIC) on behalf of ARCO Products Company (ARCO) presents the results of the third quarter 1993 groundwater monitoring and remedial system performance evaluation at the site referenced above. **In addition, a summary of work completed and anticipated at the site is included.**

QUARTERLY GROUNDWATER MONITORING RESULTS

Depth to water data collected on September 13, 1993, indicate that groundwater elevations have declined in site groundwater monitoring wells an average of 1.0 feet since June 15, 1993. Groundwater flow was to the west with an approximate gradient of 0.002. As discussed below, **a groundwater depression has developed as a result of pumping extraction Well E-1A.** Groundwater elevation data are presented in Table 1. A groundwater elevation contour map based on the September 13, 1993 data is shown on Figure 1.

Groundwater samples were collected on September 14 through 17, 1993, and analyzed for total petroleum hydrocarbons calculated as gasoline (TPH-g), benzene, toluene, ethylbenzene, and xylenes (BTEX compounds). Field and laboratory procedures are presented as Attachment A.

The results of groundwater monitoring this quarter indicate that TPH-g and benzene concentrations are generally consistent with previous quarters. TPH-g was detected at concentrations ranging from 140 parts per billion (ppb) in

Well MW-17 to 4,500 ppb in Well MW-10. Benzene was detected at concentrations ranging from 36 ppb in Well MW-8 to 670 ppb in Well MW-10. Wells MW-7, MW-9, MW-11, MW-13 through MW-16, MW-18, MW-19, and MW-21 through MW-26 had non-detectable levels of TPH-g and BTEX compounds. Separate-phase hydrocarbons were not observed in any site well this quarter. Groundwater analytical data for TPH-g and BTEX compounds are presented in Table 2. A TPH-g and benzene concentration map is shown on Figure 2. Certified analytical reports, chain-of-custody documentation, and field data sheets are presented as Attachment B.

REMEDIAL PERFORMANCE EVALUATION

The remedial action currently in progress at this site consists of groundwater extraction (GWE). The GWE system has been in operation since October 15, 1991. The objectives of the remedial action include: (1) migration control of the impacted groundwater plume, and (2) petroleum hydrocarbon mass reduction. A brief description of the GWE system, along with an evaluation of its performance are summarized below. **In order to evaluate treatment system performance, PACIFIC monitored well water levels, instantaneous and average extracted water flow rates, and sampled the influent and effluent of the treatment system for TPH-g and BTEX compounds on a monthly basis.** Treatment system effluent is also analyzed for arsenic as requested by the Oro Loma Sanitary District. The data presented in this section covers the period from June 4 through September 13, 1993.

Groundwater Extraction System Description

The GWE system is comprised of one extraction well (E-1A) containing an electrical submersible pump. The treatment system uses three granular activated carbon vessels to treat the influent groundwater stream before it is discharged into the sanitary sewer. The carbon vessels are arranged in series, with valving to permit bed order rotation. This allows for the primary vessel to become the secondary vessel after the carbon has been renewed. Sample ports are located at the treatment system influent, effluent, the mid-point between the carbon vessels, and at each individual well head. A sanitary sewer discharge permit was obtained from the Oro Loma Sanitary District on April 4, 1991. The updated permit is effective through April 4, 1994.

Migration Control

Progress toward meeting the migration control objective is evaluated by comparison of the groundwater elevation contour map (Figure 1) and TPH-g and benzene concentration map (Figure 2) from previous and current groundwater monitoring events. As indicated by Figures 1 and 2, the GWE system is affecting the migra-

tion of the petroleum hydrocarbon plume by creating a groundwater depression at the extraction well. The groundwater depression extends approximately 30 feet radially around the GWE well.

Mass Reduction

Progress toward meeting the mass reduction objective is determined by evaluating GWE system mass removal data and the TPH-g concentration trends in associated groundwater monitoring wells. GWE system operational data are collected monthly. The system flow and influent sample analysis data are used to estimate TPH-g mass removal values. During this quarter, GWE removed approximately 0.4 pound (0.07 gallon) of TPH-g from the impacted groundwater beneath the site. To date, GWE has removed approximately 3.4 pounds (0.6 gallon) of TPH-g from impacted groundwater beneath the site. Mass removal data for the GWE system are presented in Table 3. Treatment system certified analytical reports, chain-of-custody documentation, and field data sheets are presented as Attachment B. Progress toward site remediation is presented in the table below.

	Total Mass Removed			
	Third Quarter 1993		Cumulative	
Analyte	(lbs)	(gal)	(lbs)	(gal)
Groundwater Extraction				
TPH-g	0.4	0.07	3.4	0.6

TPH-g = Total petroleum hydrocarbons calculated as gasoline
lbs = Pounds
gal = Gallons

Groundwater Extraction System Operational Data

The GWE system was approximately 88.9 percent operational during the third quarter 1993. During this quarter, the GWE system discharged treated groundwater at an average flow rate of approximately 2.7 gallons per minute for a period discharge of 341,236 gallons.

The system experienced one automatic shutdown during the quarter resulting in approximately 11 days of downtime due to high pressure at the bag filter. Otherwise, the system operated continuously during the quarter.

Calculations based on 8 percent loading isotherm by weight indicate the primary carbon vessel is approximately 4.3 percent loaded. Treatment system analytical data are presented in Table 4.

During this quarter, the GWE system was in compliance with all conditions stipulated in the discharge permit. Operation and maintenance field data sheets are presented as Attachment B.

SUMMARY OF WORK

Work Completed Third Quarter 1993

- o Continued monitoring GWE system performance.
- o Preparation and submittal of second quarter 1993 groundwater monitoring report.
- o Preparation and submittal of domestic irrigation well sampling results letters.
- o Preparation and submittal of remedial investigation report.
- o Continued domestic irrigation well owner reimbursement program with owners who have discontinued well use.
- o Sampled site wells for third quarter 1993 groundwater monitoring program.
- o Sampled domestic irrigation wells.
- o Completed biodegradation numerical analysis.

Work Anticipated Fourth Quarter 1993

- o Continue monitoring GWE system performance.
- o Preparation and submittal of air sparge, soil vapor extraction, aquifer and biofeasibility testing report to Alameda County Health Care Services Agency (ACHCSA).
- o Preparation and submittal risk assessment summary letter to ACHCSA.
- o Preparation and submittal of risk assessment program outline for ACHCSA review.
- o Preparation and submittal of third quarter 1993 groundwater monitoring report.
- o Sample site wells for fourth quarter 1993 groundwater monitoring program.
- o Sample domestic irrigation wells.

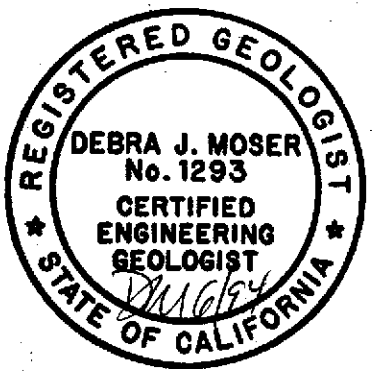
- o Preparation and submittal of domestic irrigation well sampling result letters for fourth quarter 1993.
- o Continue domestic irrigation well owner reimbursement program with owners who have discontinued well use.
- o Well MW-20 was properly destroyed on October 11, 1993.
- o Notification letter regarding modifications to the remedial system investigation and feasibility study requirements and schedule was submitted to ACHCSA on November 4, 1993.

If there are any questions regarding the contents of this report, please call.

Sincerely,

Pacific Environmental Group, Inc.

Shaw Garakani
Project Engineer



Debra J. Moser
Senior Geologist
CEG 1293

Attachments:
Table 1 - Groundwater Elevation Data
Table 2 - Groundwater Analytical Data - Total Petroleum Hydrocarbons (TPH as Gasoline and BTEX Compounds)
Table 3 - Estimated Total Dissolved TPH as Gasoline Removal Data for Groundwater Extraction System
Table 4 - Treatment System Analytical Data - Total Petroleum Hydrocarbons (TPH as Gasoline and BTEX Compounds)
Figure 1 - Groundwater Elevation Contour Map
Figure 2 - TPH-g/Benzene Concentration Map
Attachment A - Field and Laboratory Procedures
Attachment B - Certified Analytical Reports, Chain-of-Custody Documentation, and Field Data Sheets

cc: Ms. Susan Hugo, Alameda County Health Care Services
Ms. Juliett Shin, Alameda County Health Care Services
Mr. Richard Hiett, Regional Water Quality Control Board - S.F. Bay Region

Table 1
Groundwater Elevation Data

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Liquid (feet, TOB)	Separate-Phase Hydrocarbon Thickness (feet)	Liquid Surface Elevation (feet, MSL)
MW-1	01/11/88	NA	NA	--	NA
	06/14/88	---------- Well Destroyed ----------			
MW-2	07/05/85	NA	NA	--	NA
	01/11/88	NA	NA	--	NA
	06/14/88	---------- Well Destroyed ----------			
MW-3	01/11/88	33.27	NA	--	NA
	03/07/89		11.96	--	21.31
	06/21/89		12.85	--	20.42
	12/12/89		13.46	--	19.81
	03/29/90		13.21	--	20.06
	05/08/90		13.23	--	20.04
	06/22/90		NA	--	NA
	07/18/90	---------- Well Destroyed ----------			
MW-4	01/11/88	32.43	NA	--	NA
	09/12/88		NA	--	NA
	03/07/89		10.76	--	21.67
	06/21/89		11.96	--	20.47
	12/12/89		NA	--	NA
	03/29/90		11.72	0.01	20.71
	05/08/90		12.19	--	20.24
	06/22/90		NA	--	NA
	07/18/90	---------- Well Destroyed ----------			
MW-5	01/16/92	33.99	Dry	--	NA
	02/19/92		13.5	--	20.49
	03/17/92		11.90	--	22.09
	04/15/92		12.18	--	21.81
	05/14/92		12.78	--	21.21
	06/15/92	---------- Well Dry ----------			
	07/14/92	---------- Well Dry ----------			
	08/18/92	---------- Well Dry ----------			
	09/15/92	---------- Well Dry ----------			
	10/16/92	---------- Well Dry ----------			
	11/18/92	---------- Well Dry ----------			
	12/17/92		12.74	--	21.25
	01/19/93		10.92	--	23.07
	02/22/93		11.10	--	22.89
	03/15/93		11.13	--	22.86
	04/09/93		11.46	--	22.53

Table 1 (continued)
Groundwater Elevation Data

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Liquid (feet, TOB)	Separate-Phase Hydrocarbon Thickness (feet)	Liquid Surface Elevation (feet, MSL)
MW-5 (cont.)	05/13/93		12.19	--	21.80
	06/04/93		12.51	--	21.48
	06/15/93		12.59	--	21.40
	09/13/93		13.40	--	20.59
MW-6 (E-1)	06/21/89	32.95	12.48	--	20.47
	12/12/89		13.16	--	13.16
	03/29/90		12.39	--	12.39
	05/08/90		12.93	--	12.93
	06/22/90		12.94	--	12.94
	07/18/90		Well Destroyed		
MW-7	01/16/92	34.40	13.33	--	21.83
	02/19/92		12.16	--	NA
	03/17/92		11.86	--	22.54
	04/15/92		12.30	--	22.10
	05/14/92		13.04	--	21.36
	06/15/92		13.78	--	20.62
	07/14/92		14.20	--	20.20
	08/18/92		14.79	--	19.61
	09/15/92		15.12	--	19.28
	10/16/92		15.38	--	19.02
	11/18/92		15.10	--	19.30
	12/17/92		13.69	--	20.71
	01/19/93		10.92	--	23.48
	02/22/93		10.91	--	23.49
	03/15/93		11.13	--	23.03
	04/09/93		11.46	--	22.94
	05/13/93		12.22	--	22.18
	06/04/93		12.51	--	21.89
	06/15/93		12.66	--	21.74
	09/13/93		13.78	--	20.62
MW-8	01/16/92	32.79	13.40	--	19.39
	02/19/92		11.26	--	21.53
	03/17/92		10.90	--	21.89
	04/15/92		11.35	--	21.44
	05/14/92		12.06	--	20.73
	06/15/92		12.83	--	19.96
	07/14/92		12.75	--	20.04
	08/18/92		13.83	--	18.96
	09/15/92		14.17	--	18.62
	10/16/92		14.51	--	18.28
	11/18/92		14.15	--	18.64

Table 1 (continued)
Groundwater Elevation Data

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Liquid (feet, TOB)	Separate-Phase Hydrocarbon Thickness (feet)	Liquid Surface Elevation (feet, MSL)
MW-8 (cont.)	12/17/92		12.68	--	20.11
	01/19/93		9.79	--	23.00
	02/22/93		9.95	--	22.84
	03/15/93		10.31	--	22.48
	04/09/93		10.47	--	22.32
	05/13/93		11.18	--	21.61
	06/04/93		11.47	--	21.32
	06/15/93		11.62	--	21.17
	09/13/93		12.70	--	20.09
MW-9	01/16/92	32.11	12.45	--	19.66
	02/19/92		10.25	--	21.86
	03/17/92		10.01	--	22.10
	04/15/92		10.49	--	21.62
	05/14/92		11.19	--	20.92
	06/15/92		11.86	--	20.25
	07/14/92		12.28	--	19.83
	08/18/92		12.89	--	19.22
	09/15/92		13.28	--	18.83
	10/16/92		13.60	--	18.51
	11/18/92		13.24	--	18.87
	12/17/92		11.76	--	20.35
	01/19/93		8.99	--	23.12
	02/22/93		9.13	--	22.98
	03/15/93		9.48	--	22.63
	04/09/93		9.63	--	22.48
	05/13/93		10.35	--	21.76
	06/04/93		10.65	--	21.46
	06/15/93		10.81	--	21.30
	09/13/93		11.87	--	20.24
MW-10	01/16/92	31.67	12.55	--	19.12
	02/19/92		10.50	--	21.17
	03/18/92		10.12	--	21.55
	04/15/92		10.59	--	21.08
	05/14/92		11.30	--	20.37
	06/15/92		11.93	--	19.74
	07/14/92		12.42	--	19.25
	08/18/92		13.03	--	18.64
	09/15/92		13.42	--	18.25
	10/16/92		13.74	--	17.93
	11/18/92		13.42	--	18.25
	12/17/92		11.94	--	19.73

Table 1 (continued)
Groundwater Elevation Data

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Liquid (feet, TOB)	Separate-Phase Hydrocarbon Thickness (feet)	Liquid Surface Elevation (feet, MSL)
MW-10 (cont.)	01/19/93		9.13	--	22.54
	02/22/93		9.22	--	22.45
	03/15/93		9.64	--	22.03
	04/09/93		9.75	--	21.92
	05/13/93		10.49	--	21.18
	06/04/93		10.78	--	20.89
	06/15/93		10.93	--	20.74
	09/13/93		12.01	--	19.66
MW-11	01/16/92	32.54	13.28	--	19.26
	02/19/92		11.29	--	21.25
	03/17/92		10.81	--	21.73
	04/15/92		11.23	--	21.31
	05/14/92		11.96	--	20.58
	06/15/92		12.64	--	19.90
	07/14/92		13.08	--	19.46
	08/18/92		13.72	--	18.82
	09/15/92		14.13	--	18.41
	10/16/92		14.45	--	18.09
	11/18/92		14.11	--	18.43
	12/17/92		12.69	--	19.85
	01/19/93		9.91	--	22.63
	02/22/93		9.95	--	22.59
	03/15/93		10.30	--	22.24
	04/09/93		10.42	--	22.12
	05/13/93		11.16	--	21.38
	06/04/93		11.44	--	21.10
	06/15/93		11.59	--	20.95
	09/13/93		12.68	--	19.86
E-1A (MW-12)	01/16/92	33.06	23.68	--	9.38
	02/19/92		18.71	--	14.35
	03/17/92		23.10	--	9.96
	04/15/92		20.54	--	12.52
	05/14/92		23.09	--	9.97
	06/15/92		23.72	--	9.34
	07/14/92		13.25	--	19.81
	08/18/92		23.73	--	9.33
	09/15/92		23.62	--	9.44
	10/16/92		23.78	--	9.28
	11/18/92		23.80	--	9.26
	12/17/92		22.65	--	10.41

Table 1 (continued)
Groundwater Elevation Data

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Liquid (feet, TOB)	Separate-Phase Hydrocarbon Thickness (feet)	Liquid Surface Elevation (feet, MSL)
E-1A (MW-12)	01/19/93		23.65	--	9.41
	02/22/93		23.70	--	9.36
	03/15/93		22.92	--	10.14
	04/09/93		22.50	--	10.56
	05/13/93		20.40	--	12.66
	06/04/93		18.74	--	14.32
	06/15/93		20.00	--	13.06
	09/13/93		19.50	--	13.56
MW-13	01/16/92	35.42	15.70	--	19.72
	02/19/92		13.60	--	21.82
	03/17/92		13.20	--	22.22
	04/15/92		13.64	--	21.78
	05/14/92		14.34	--	21.08
	06/15/92		15.13	--	20.29
	07/14/92		15.45	--	19.97
	08/18/92		16.15	--	19.27
	09/15/92		16.51	--	18.91
	10/16/92		16.81	--	18.61
	11/18/92		16.50	--	18.92
	12/17/92		15.07	--	20.35
	01/19/93		12.40	--	23.02
	02/22/93		12.35	--	23.07
	03/15/93		12.69	--	22.73
	04/09/93		12.85	--	22.57
	05/13/93		13.55	--	21.87
	06/04/93		13.83	--	21.59
	06/15/93		13.97	--	21.45
	09/13/93		15.09	--	20.33
MW-14	01/16/92	30.46	11.34	--	19.12
	02/19/92		9.32	--	21.14
	03/17/92		9.04	--	21.42
	06/15/92		10.83	--	19.63
	09/15/92		12.27	--	18.19
	12/17/92		10.69	--	19.77
	03/15/93		8.70	--	21.76
	06/15/93		9.90	--	20.56
	09/13/93		10.89	--	19.57
MW-15	01/16/92	31.41	12.80	--	18.61
	02/19/92		10.85	--	20.56
	03/18/92		10.41	--	21.00
	06/15/92		12.19	--	19.22
	09/15/92		13.69	--	17.72

Table 1 (continued)
Groundwater Elevation Data

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Liquid (feet, TOB)	Separate-Phase Hydrocarbon Thickness (feet)	Liquid Surface Elevation (feet, MSL)
MW-15 (cont.)	12/17/92		12.26	--	19.15
	03/15/93		10.05	--	21.36
	06/15/93		11.32	--	20.09
	09/13/93		12.35	--	19.06
MW-16	01/16/92	31.39	13.09	--	18.30
	02/19/92		10.99	--	20.40
	03/18/92		10.85	--	20.54
	06/15/92		12.64	--	18.75
	09/15/92		14.07	--	17.32
	12/17/92		12.56	--	18.83
	03/15/93		10.60	--	20.79
	06/15/93		11.86	--	19.53
	09/13/93		12.83	--	18.56
MW-17	01/16/92	32.43	13.92	--	18.51
	02/19/92		11.65	--	20.78
	03/18/92		11.71	--	20.72
	06/15/92		13.50	--	18.93
	09/15/92		14.95	--	17.48
	12/17/92		13.34	--	19.09
	03/15/93		11.47	--	20.96
	06/15/93		12.69	--	19.74
	09/13/93		13.66	--	18.77
MW-18	03/18/92	29.70	9.73	--	19.97
	06/15/92		11.50	--	18.20
	09/15/92		12.90	--	16.80
	12/17/92		11.21	--	18.49
	03/15/93		9.62	--	20.08
	06/15/93		10.85	--	18.85
	09/13/93		11.75	--	17.95
MW-19	03/18/92	29.02	9.22	--	19.80
	06/15/92		10.94	--	18.08
	09/15/92		12.38	--	16.64
	12/17/92		10.51	--	18.51
	03/15/93		9.23	--	19.79
	06/15/93		10.28	--	18.74
	09/13/93		11.16	--	17.86
MW-20	03/18/92	29.54	9.49	--	20.05
	06/15/92		11.11	--	18.43
	09/15/92		12.50	--	17.04
	12/17/92		10.74	--	18.80

Table 1 (continued)
Groundwater Elevation Data

ARCO Service Station 0608
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San Lorenzo, California

Well Number	Date Gauged	Well Elevation (feet, MSL)	Depth to Liquid (feet, TOB)	Separate-Phase Hydrocarbon Thickness (feet)	Liquid Surface Elevation (feet, MSL)
MW-20 (cont.)	03/15/93		9.44	--	20.10
	06/05/93		10.45	--	19.09
	10/11/93	---------- Well Destroyed ----------			
MW-21	03/18/92	28.72	9.55	--	19.17
	06/15/92		11.30	--	17.42
	09/15/92		12.78	--	15.94
	12/17/92		10.80	--	17.92
	03/15/93		9.59	--	19.13
	06/15/93		10.77	--	17.95
	09/13/93		11.63	--	17.09
MW-22	03/17/92	29.29	10.05	--	19.24
	06/15/92		11.84	--	17.45
	09/15/92		13.27	--	16.02
	12/17/92		11.58	--	17.71
	03/15/93		10.03	--	19.26
	06/15/93		11.22	--	18.07
	09/13/93		12.17	--	17.12
MW-23	03/17/92	30.99	11.20	--	19.79
	06/15/92		12.94	--	18.05
	09/15/92		14.40	--	16.59
	12/17/92		13.01	--	17.98
	03/15/93		11.01	--	19.98
	06/15/93		12.26	--	18.73
	09/13/93		13.23	--	17.76
MW-24	06/15/93	34.38	13.39	--	20.99
	09/13/93		14.38	--	20.00
MW-25	04/09/93	34.12	11.18	--	22.94
	06/15/93		12.35	--	21.77
	09/13/93		13.45	--	20.67
MW-26	06/15/93	33.71	12.66	--	21.05
	09/13/93		13.70	--	20.01

MSL = Mean sea level
TOB = Top of box
NA = Not available
Well elevations are measured from set mark at top of vault box.
For groundwater elevation data prior to January 1992, see previous groundwater monitoring reports.

Table 2
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline and BTEX Compounds)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-1	01/11/88	300	20	10	50	80
	06/14/88	Well Destroyed				
MW-2	07/05/85	32,000	1,000	690	NA*	1,500*
	01/11/88	3,300	804	115	168	166
	06/14/88	Well Destroyed				
MW-3	01/11/88	1,800	20	20	80	60
	03/07/89	150,000	4,600	5,200	5,600	13,000
	06/21/89	63,000	2,700	5,800	3,300	12,000
	12/12/89	Well Dry				
	03/29/90	1,100,000**	13,000	60,000	17,000	91,000
	06/22/90	Well Dry				
	07/18/90	Well Destroyed				
MW-4	01/11/88	62,000	2,700	7,900	850	5,200
	09/12/88	Separate-Phase Hydrocarbon Sheen				
	03/07/89	84,000	2,400	3,400	2,500	7,600
	06/21/89	31,000	400	800	200	1,500
	12/12/89	Well Dry				
	03/29/90	0.01 foot of Separate-Phase Hydrocarbon				
	06/22/90	Well Dry				
	07/18/90	Well Destroyed				
MW-5	01/11/88	31,000	4,000	2,700	3,800	5,500
	03/07/89	1,300	340	ND	140	50
	06/21/89	1,100	200	ND	130	40
	12/12/89	Well Dry				
	03/29/90	Well Dry				
	06/22/90	Well Dry				
	09/19/90	Well Dry				
	12/27/90	Well Dry				
	03/21/91	Well Dry				
	06/26/91	Well Dry				
	09/24/91	Well Dry				
	12/19/91	Well Dry				
	03/18/92	11,000	110	2.0	410	150
	06/15/92	Well Dry				
	09/16/92	Well Dry				
	12/22/92	960	220	6.5	4.0	2.0
	03/17/93	2,600	180	1.4	28	1.2
	06/17/93	2,500	450	7.5	55	<5
	09/17/93	1,400	230	<5.0	6.7	<5.0

Table 2 (continued)
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline and BTEX Compounds)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-6	06/21/89	1,700	170	170	85	290
(E-1)	12/12/89	500	26	7	8	18
	03/29/90	130	14	9	4	11
	06/22/90	150	15	5	4	13
	07/18/90	---------- Well Destroyed ----------				
MW-7	04/13/90	<50	<0.3	<0.3	<0.3	<0.3
	06/22/90	<50	0.5	1	0.6	3
	09/19/90	<50	<0.3	<0.3	<0.3	<0.3
	12/27/90	69	<0.3	0.3	0.4	2
	03/21/91	<30	<0.3	<0.3	<0.3	<0.3
	06/26/91	<30	<0.3	<0.3	<0.3	<0.3
	09/24/91	<30	<0.3	<0.3	<0.3	<0.3
	12/19/91	<30	<0.3	<0.3	<0.3	<0.3
	03/17/92	<30	<0.3	<0.3	<0.3	<0.3
	06/17/92	<30	<0.3	<0.3	<0.3	<0.3
	09/16/92	<50	<0.5	<0.5	<0.5	<0.5
	12/21/92	<50	<0.5	<0.5	<0.5	<0.5
	03/17/93	<50	<0.5	<0.5	<0.5	<0.5
	06/15/93	<50	<0.5	<0.5	<0.5	<0.5
	09/14/93	<50	<0.5	<0.5	<0.5	<0.5
MW-8	04/13/90	4,900	350	16	450	33
	06/22/90	3,700	370	12	330	28
	09/19/90	140	4	3	3	3
	12/27/90	1,200	7	0.3	53	<0.3
	03/21/91	540	8.8	<6.0	21	9.6
	06/26/91	2,100	290	<6.0	56	<6.0
	09/24/91	260	51	0.34	7.9	<0.3
	12/19/91	5,300	300	<3.0	21	4.8
	03/17/92	9,200	370	3.0	48	4.9
	06/17/92	3,300	460	2.7	63	6.9
	09/16/92	1,500	58	<0.5	6.1	4.5
	12/22/92	3,600	410	56	62	4.4
	03/18/93	3,800	61	<0.5	11	1.2
	06/17/93	2,400	430	<5	11	<5
	09/14/93	1,900	36	1.4	32	8.6
MW-9	04/13/90	<50	<0.3	<0.3	<0.3	2
	06/22/90	12,000	200	3	250	180
	09/19/90	<50	<0.3	<0.3	<0.3	0.6
	12/27/90	<50	<0.3	<0.3	<0.3	<0.3
	03/21/91	<30	<0.3	<0.3	<0.3	<0.3
	06/26/91	<30	<0.3	<0.3	<0.3	<0.3

Table 2 (continued)
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline and BTEX Compounds)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-9 (cont.)	09/24/91	<30	<0.3	<0.3	<0.3	<0.3
	12/19/91	<30	<0.3	<0.3	<0.3	<0.3
	03/17/92	<30	<0.3	<0.3	<0.3	<0.3
	06/16/92	<30	<0.3	<0.3	<0.3	<0.3
	09/16/92	<50	<0.5	<0.5	<0.5	<0.5
	12/21/92	75***	<0.5	<0.5	<0.5	<0.5
	03/16/93	<50	<0.5	<0.5	<0.5	<0.5
	06/15/93	<50	<0.5	<0.5	<0.5	<0.5
	09/14/93	<50	<0.5	<0.5	<0.5	<0.5
MW-10	04/13/90	10,000	150	4	280	200
	06/22/90	9,700	28	<0.3	131	210
	09/19/90	1,800	<0.3	4	0.8	10
	12/27/90	5,700	7	3	95	61
	03/21/91	6,900	22	<15	92	33
	06/26/91	9,300	51	<0.3	59	34
	09/24/91	360	8.6	5.2	14	6.2
	12/19/91	3,300	9.2	8.4	11	17
	03/18/92	4,700	14	<6.0	29	10
	06/16/92	4,800	0.46	0.34	7.4	3.8
	09/16/92	2,000	8.3	3.0	3.3	5.5
	12/22/92	2,700***	6.2	<1.0	7.5	2.8
	03/16/93	4,100	340	2.4	58	54
	06/17/93	4,900	860	<10	540	92
	09/17/93	4,500	670	<10.0	240	7.2
MW-11	04/13/90	<50	<0.3	<0.3	<0.3	<0.3
	06/22/90	63	0.4	0.9	0.7	3
	09/19/90	<50	<0.3	<0.3	<0.3	<0.3
	12/27/90	<50	<0.3	<0.3	<0.3	<0.3
	03/21/91	<30	<0.3	<0.3	<0.3	<0.3
	06/26/91	<30	<0.3	<0.3	<0.3	<0.3
	09/24/91	<30	<0.3	<0.3	<0.3	<0.3
	12/19/91	<30	<0.3	<0.3	<0.3	<0.3
	03/17/92	<30	<0.3	<0.3	<0.3	<0.3
	06/16/92	<30	<0.3	<0.3	<0.3	<0.3
	09/16/92	<50	<0.5	<0.5	<0.5	<0.5
	12/22/92	<50	<0.5	<0.5	<0.5	<0.5
	03/16/93	<50	<0.5	<0.5	<0.5	<0.5
	06/16/93	<50	<0.5	<0.5	<0.5	<0.5
	09/14/93	<50	<0.5	<0.5	<0.5	<0.5

Table 2 (continued)
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline and BTEX Compounds)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
E-1A (MW-12)	09/19/90	<50	7	0.9	1	2
	12/27/90	<50	3	0.5	1	1
	03/21/91	<30	4.2	<0.3	1.1	0.89
	06/26/91	41	6.3	<0.3	1.2	0.59
		---------- Converted to Extraction Well 8/91 ----------				
MW-13	07/03/91	<30	<0.3	<0.3	<0.3	<0.3
	09/24/91	<30	<0.3	<0.3	<0.3	<0.3
	12/19/91	<30	<0.3	<0.3	<0.3	<0.3
	03/17/92	<30	<0.3	<0.3	<0.3	<0.3
	06/17/92	<30	<0.3	<0.3	<0.3	<0.3
	09/16/92	<50	<0.5	<0.5	<0.5	<0.5
	12/21/92	<50	<0.5	<0.5	<0.5	<0.5
	03/17/93	<50	<0.5	<0.5	<0.5	<0.5
	06/15/93	<50	<0.5	<0.5	<0.5	<0.5
	09/14/93	<50	<0.5	<0.5	<0.5	<0.5
MW-14	07/03/91	<30	<0.3	<0.3	<0.3	<0.3
	09/24/91	<30	<0.3	<0.3	<0.3	<0.3
	12/19/91	<30	<0.3	<0.3	<0.3	<0.3
	03/17/92	<30	<0.3	<0.3	<0.3	<0.3
	06/16/92	<30	<0.3	<0.3	<0.3	<0.3
	09/16/92	<50	<0.5	<0.5	<0.5	<0.5
	12/22/92	<50	<0.5	<0.5	<0.5	<0.5
	03/16/93	<50	<0.5	<0.5	<0.5	<0.5
	06/15/93	<50	<0.5	<0.5	<0.5	<0.5
	09/15/93	<50	<0.5	<0.5	<0.5	<0.5
MW-15	07/03/91	570	1.8	1.0	1.0	2.2
	09/24/91	<30	<0.3	<0.3	<0.3	<0.3
	12/19/91	360	<0.6	<0.6	0.64	<0.6
	03/18/92	730	0.74	0.98	1.8	0.68
	06/16/92	310	0.54	0.34	0.96	2.5
	09/16/92	100	1.0	<0.5	<0.5	<0.5
	12/22/92	130***	<0.5	<0.5	<0.5	<0.5
	03/18/93	130***	<0.5	<0.5	<0.5	<0.5
	06/17/93	<50	<0.5	<0.5	<0.5	<0.5
	09/17/93	<50	<0.5	<0.5	<0.5	<0.5
MW-16	07/03/91	2,700	31	6.9	4.6	3.1
	09/24/91	430	1.8	1.3	1.9	1.5
	12/19/91	75	<0.3	<0.3	<0.3	<0.3
	03/18/92	1,500	4.0	0.73	2.2	1.3
	06/16/92	80	<0.3	<0.3	<0.3	<0.3

Table 2 (continued)
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline and BTEX Compounds)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-16 (cont.)	09/16/92	<50	<0.5	<0.5	<0.5	<0.5
	12/22/92	<50	<0.5	<0.5	<0.5	<0.5
	03/18/93	380***	<0.5	<0.5	<0.5	<0.5
	06/17/93	<50	<0.5	<0.5	<0.5	<0.5
	09/17/93	<50	<0.5	<0.5	<0.5	<0.5
MW-17	07/03/91	1,200	12	1.9	28	40
	09/24/91	150	2.7	0.5	3.9	0.59
	12/19/91	370	2.6	<0.3	7.2	6.5
	03/18/92	470	3.1	<0.3	9.1	8.6
	06/16/92	310	1.7	0.56	12	9.6
	09/16/92	77	1.5	<0.5	1.2	1.0
	12/21/92	220	1.2	<0.5	9.8	9.4
	03/17/93	250	<0.5	<0.5	7.8	3.3
	06/17/93	90	0.92	<0.5	2.7	2.4
	09/16/93	140	<0.5	<0.5	5.4	3.9
MW-18	10/04/91	<30	<0.3	<0.3	<0.3	<0.3
	12/19/91	<30	<0.3	<0.3	<0.3	<0.3
	03/18/92	<30	<0.3	<0.3	<0.3	<0.3
	06/15/92	<30	<0.3	<0.3	<0.3	<0.3
	09/15/92	<50	<0.5	<0.5	<0.5	<0.5
	12/21/92	<50	<0.5	<0.5	<0.5	<0.5
	03/17/93	<50	<0.5	<0.5	<0.5	<0.5
	06/16/93	<50	<0.5	<0.5	<0.5	<0.5
	09/16/93	<50	<0.5	<0.5	<0.5	<0.5
MW-19	10/04/91	<30	<0.3	<0.3	<0.3	<0.3
	12/19/91	<30	<0.3	<0.3	<0.3	<0.3
	03/18/92	<30	<0.3	<0.3	<0.3	<0.3
	06/15/92	<30	<0.3	<0.3	<0.3	<0.3
	09/15/92	<50	<0.5	<0.5	<0.5	<0.5
	12/21/92	<50	<0.5	<0.5	<0.5	<0.5
	03/17/93	<50	<0.5	<0.5	<0.5	<0.5
	06/16/93	<50	<0.5	<0.5	<0.5	<0.5
	09/16/93	<50	<0.5	<0.5	<0.5	<0.5
MW-20	10/04/91	<30	<0.3	<0.3	<0.3	<0.3
	12/19/91	<30	<0.3	<0.3	<0.3	<0.3
	03/18/92	<30	<0.3	<0.3	<0.3	<0.3
	06/15/92	<30	<0.3	<0.3	<0.3	<0.3
	09/15/92	<50	<0.5	<0.5	<0.5	<0.5

Table 2 (continued)
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline and BTEX Compounds)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-20 (cont.)	12/21/92	<50	<0.5	<0.5	<0.5	<0.5
	03/17/93	<50	<0.5	<0.5	<0.5	<0.5
	06/16/93	<50	<0.5	<0.5	<0.5	<0.5
	10/11/93	---------- Well Destroyed ----------				
MW-21	10/04/91	<30	<0.3	<0.3	<0.3	<0.3
	12/19/91	<30	<0.3	<0.3	<0.3	<0.3
	03/18/92	<30	<0.3	<0.3	<0.3	<0.3
	06/15/92	<30	<0.3	<0.3	<0.3	<0.3
	09/15/92	<50	<0.5	<0.5	<0.5	<0.5
	12/22/92	<50	<0.5	<0.5	<0.5	<0.5
	03/17/93	<50	<0.5	<0.5	<0.5	<0.5
	06/16/93	<50	<0.5	<0.5	<0.5	<0.5
	09/16/93	<50	<0.5	<0.5	<0.5	<0.5
MW-22	10/04/91	<30	<0.3	<0.3	<0.3	<0.3
	12/19/91	<30	<0.3	<0.3	<0.3	<0.3
	03/17/92	<30	<0.3	<0.3	<0.3	<0.3
	06/15/92	<30	<0.3	<0.3	<0.3	<0.3
	09/15/92	<50	<0.5	<0.5	<0.5	<0.5
	12/22/92	<50	<0.5	<0.5	<0.5	<0.5
	03/17/93	<50	<0.5	<0.5	<0.5	<0.5
	06/16/93	<50	<0.5	<0.5	<0.5	<0.5
	09/16/93	<50	<0.5	<0.5	<0.5	<0.5
MW-23	10/04/91	<30	<0.3	<0.3	<0.3	<0.3
	12/19/91	<30	<0.3	<0.3	<0.3	<0.3
	03/17/92	<30	<0.3	<0.3	<0.3	<0.3
	06/15/92	<30	<0.3	<0.3	<0.3	<0.3
	09/15/92	<50	<0.5	<0.5	<0.5	<0.5
	12/22/92	<50	<0.5	<0.5	<0.5	<0.5
	03/16/93	<50	<0.5	<0.5	<0.5	<0.5
	06/16/93	<50	<0.5	<0.5	<0.5	<0.5
	09/15/93	<50	<0.5	<0.5	<0.5	<0.5
MW-24	03/29/93	<50	<0.5	<0.5	<0.5	<0.5
	06/15/93	<50	<0.5	<0.5	<0.5	<0.5
	09/14/93	<50	<0.5	<0.5	<0.5	<0.5
MW-25	03/29/93	<50	0.69	<0.5	<0.5	<0.5
	06/15/93	<50	<0.5	<0.5	<0.5	<0.5
	09/14/93	<50	<0.5	<0.5	<0.5	<0.5

Table 2 (continued)
Groundwater Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline and BTEX Compounds)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Well Number	Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MW-26	03/29/93	<50	<0.5	<0.5	<0.5	<0.5
	06/15/93	<50	<0.5	<0.5	<0.5	<0.5
	09/14/93	<50	<0.5	<0.5	<0.5	<0.5

ppb = Parts per billion
NA = Not available
* = Ethylbenzene and xylenes given as a combined value.
** = Well contained slight product sheen.
*** = Non-typical gasoline chromatograph pattern.
< = Denotes minimum laboratory detection limits. See attached certified analytical reports.
MW-1 and MW-2 destroyed prior to March 7, 1989 sampling event.
MW-3, MW-4, and MW-6 (E-1) destroyed June 18, 1990.

Table 3
Estimated Total Dissolved TPH as Gasoline Removal Data for Groundwater Extraction System

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Influent Sample Date	Hour Meter Reading (hours)	System Down Time (%)	Volume Reading (gallon)	Net Volume (gallon)	Average Flow (gpm)	Dissolved TPH as Gasoline: Influent Concentration (ug/L)	Dissolved TPH as Gasoline: Net Removed (pound)	Dissolved TPH as Gasoline: Removed To Date (pound)	Primary Carbon Loading (%)
09/25/91	0.0	NA	0	0	0.0	<50	NA	0.0	0.0
09/26/91	NA	NA	1,144	1,144	NA	38	0.0	0.0	0.0
10/22/91	25.6	95.9	12,844	11,700	7.6	<50	NA	0.0	0.0
11/22/91	76.6	93.1	52,532	39,688	13.0	<50	NA	0.0	0.0
12/19/91	322.0	62.1	122,540	70,008	4.8	<50	NA	0.0	0.0
01/16/92	994.2	0.0	283,289	160,749	4.0	<50	NA	0.0	0.0
02/19/92	1,808.6	0.2	485,200	201,911	4.1	970	0.3	0.3	0.4
03/17/92	2,461.7	0.0	662,847	177,647	4.5	160	0.4	0.7	0.9
04/15/92	3,150.3	1.1	851,100	188,253	4.6	200	0.3	1.0	1.2
05/14/92	3,849.1	0.0	1,030,086	178,986	4.3	45	0.2	1.2	1.5
06/19/92	4,712.1	0.1	1,229,960	199,874	3.9	<50	NA	1.2	1.5
07/14/92	5,001.4	51.8	1,291,201	61,241	3.5	97	0.0	1.2	1.5
08/18/92	NA	NA	1,410,018	118,817	NA	<50	NA	1.2	1.5
09/15/92	6,298.2	NA	1,535,640	125,622	3.1	<50	NA	1.2	1.5
10/16/92	7,011.7	4.1	1,651,623	115,983	2.7	<50	NA	1.2	1.5
11/18/92	7,808.5	0.0	1,768,076	116,453	2.4	96	0.0	1.2	1.5
12/17/92	8,501.7	0.4	1,864,300	96,224	2.3	100	0.0	1.3	1.6
01/18/93	8,797.5	61.5	1,915,165	50,865	2.9	480	0.4	1.7	2.1
02/22/93	9,606.6	0.0	2,096,930	181,765	3.7	310	0.4	2.1	2.6
03/15/93	10,113.4	0.0	2,205,833	108,903	3.6	140	0.2	2.2	2.8
04/09/93	10,516.8	32.8	2,298,770	92,937	3.8	530	0.4	2.7	3.3
05/13/93	11,211.2	14.9	2,449,160	150,390	3.6	170	0.3	2.9	3.7
06/04/93	11,733.7	1.0	2,543,500	94,340	3.0	200	0.2	3.2	4.0
07/20/93	12,572.9	24.0	2,689,697	146,197	2.9	150	0.1	3.3	4.1
08/16/93	13,218.8	0.3	2,791,366	101,669	2.6	80	0.1	3.4	4.3
09/13/93	13,887.9	0.4	2,884,736	93,370	2.3				
AVERAGE PERCENT OF SYSTEM DOWN TIME SINCE START-UP:									19.5
TOTAL POUNDS OF TPH AS GASOLINE REMOVED:									3.4
TOTAL GALLONS OF TPH AS GASOLINE REMOVED:									0.6

ug/L = Micrograms per liter
NA = Not available or not applicable
1. Net dissolved TPH as gasoline removed data are approximate.
2. Density of Gasoline = 5.63 pounds per gallon.
3. Primary carbon loading is estimated using an isotherm of 8 percent by weight.

Equations:
Net Dissolved TPH-g Removed [pounds] = TPH-g concentration, [ug/L] x net volume (gallon) x density of gasoline [pound/gallon]
(Net dissolved TPH-g removed is calculated by averaging influent concentrations)

Table 4
Treatment System Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline and BTEX Compounds)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

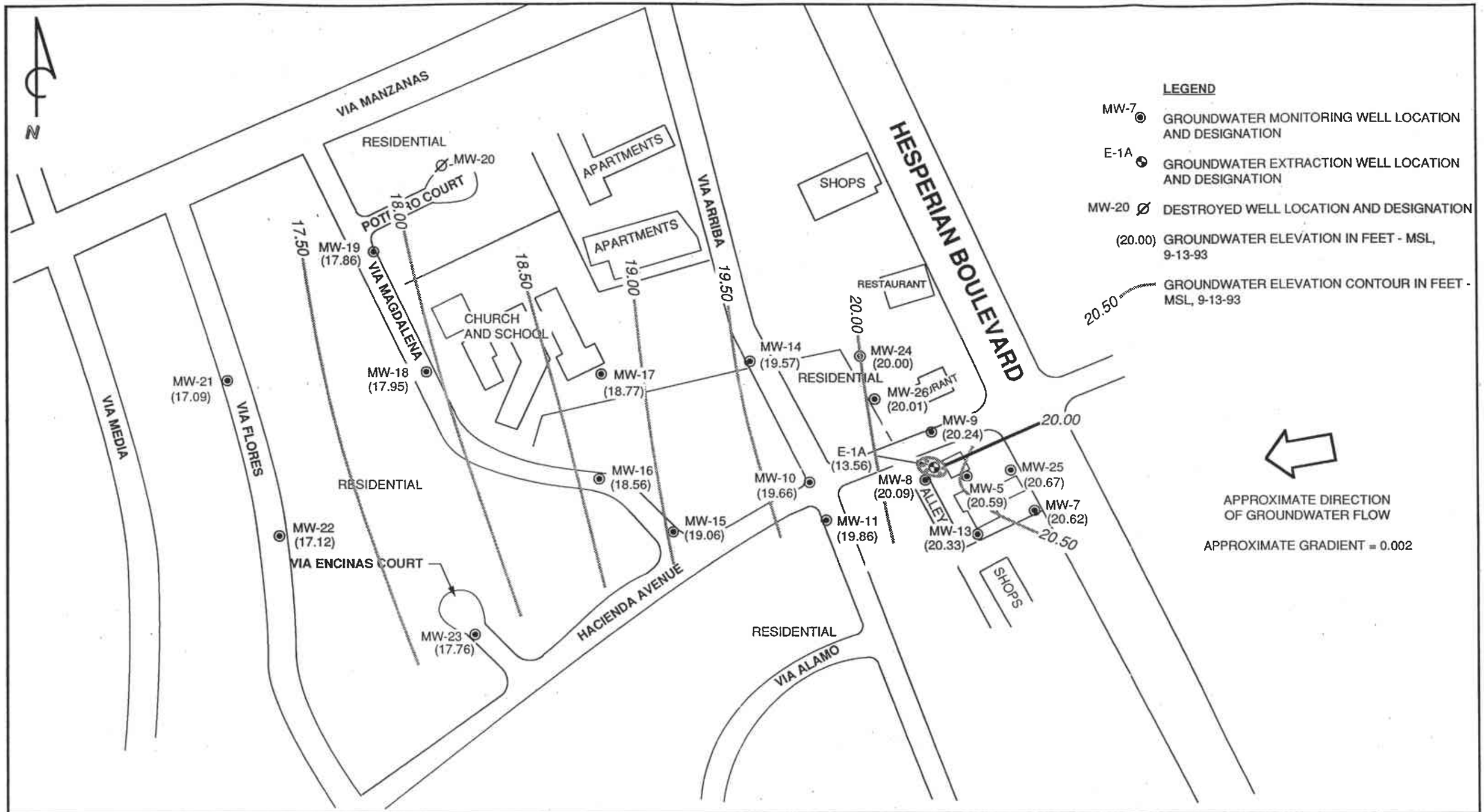
Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
INFL (influent to primary carbon)					
09/26/91	38	4.8	0.6	1.6	1.1
10/22/91	<30	<0.3	<0.3	<0.3	<0.3
11/22/91	<30	0.52	<0.3	<0.3	<0.3
12/19/91	<30	<0.3	<0.3	<0.3	<0.3
01/16/91	<30	<0.3	<0.3	<0.3	<0.3
02/19/92	370	14	0.34	14	2.4
03/17/92	160	18	0.32	0.56	1.6
04/15/92	200	11	<0.3	7.3	0.77
05/14/92	45	1.4	<0.3	<0.3	<0.3
06/19/92	<30	<0.3	<0.3	<0.3	<0.3
07/14/92	97	25	<0.5	8.5	<0.5
08/18/92	<50	<0.5	<0.5	<0.5	<0.5
09/15/92	<50	<0.5	<0.5	<0.5	<0.5
10/16/92	<50	<0.5	<0.5	<0.5	<0.5
11/18/92	<50	<0.5	<0.5	<0.5	<0.5
12/17/92	96	7.7	13	0.56	9.7
01/18/93	100	13	6.6	1.1	11
02/22/93	480	36	29	4.9	96
03/15/93	310	29	14	4.9	55
04/09/93	140	11	2.8	2.6	17
05/13/93	530	27	12	18	96
06/04/93	170	5.2	1.6	2.5	23
07/20/93	200	12	0.91	8.2	29
08/16/93	150	4.9	0.63	2.9	15
09/13/93	80	2.2	<0.5	<0.5	4.8
MID-1 (between carbons)					
09/26/91	<30	<0.3	<0.3	<0.3	<0.3
10/22/91	<30	<0.3	<0.3	<0.3	<0.3
12/19/91	<30	<0.3	<0.3	<0.3	<0.3
01/16/91	<30	<0.3	<0.3	<0.3	<0.3
02/19/92	<30	<0.3	<0.3	<0.3	<0.3
03/17/92	<30	<0.3	<0.3	<0.3	<0.3
04/15/92	<30	<0.3	<0.3	<0.3	<0.3
05/14/92	<30	<0.3	<0.3	<0.3	<0.3
06/19/92	<30	<0.3	<0.3	<0.3	<0.3
07/14/92	NS	NS	NS	NS	NS
08/18/92	NS	NS	NS	NS	NS
09/15/92	NS	NS	NS	NS	NS
10/16/92	NS	NS	NS	NS	NS

Table 4 (continued)
Treatment System Analytical Data
Total Petroleum Hydrocarbons
(TPH as Gasoline and BTEX Compounds)

ARCO Service Station 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

Date Sampled	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)
MID-1 (between carbons) (continued)					
11/18/92	NS	NS	NS	NS	NS
12/17/92	NS	NS	NS	NS	NS
01/18/93	NS	NS	NS	NS	NS
02/22/93	NS	NS	NS	NS	NS
03/15/93	NS	NS	NS	NS	NS
04/09/93	NS	NS	NS	NS	NS
05/13/93	NS	NS	NS	NS	NS
06/04/93	NS	NS	NS	NS	NS
EFFL (effluent to sewer)					
09/26/91	<30	<0.3	<0.3	<0.3	<0.3
10/22/91	<30	<0.3	<0.3	<0.3	<0.3
11/22/91	<30	<0.3	<0.3	<0.3	<0.3
12/19/91	<30	<0.3	<0.3	<0.3	<0.3
01/16/91	<30	<0.3	<0.3	<0.3	<0.3
02/19/92	<30	<0.3	<0.3	<0.3	<0.3
03/17/92	<30	<0.3	<0.3	<0.3	<0.3
04/15/92	<30	<0.3	<0.3	<0.3	<0.3
05/14/92	<30	<0.3	<0.3	<0.3	<0.3
06/19/92	<30	<0.3	<0.3	<0.3	<0.3
07/14/92	<50	<0.5	<0.5	<0.5	<0.5
08/18/92	<50	<0.5	<0.5	<0.5	<0.5
09/15/92	<50	<0.5	<0.5	<0.5	<0.5
10/16/92	<50	<0.5	<0.5	<0.5	<0.5
11/18/92	<50	<0.5	<0.5	<0.5	<0.5
12/17/92	<50	<0.5	<0.5	<0.5	<0.5
01/18/93	<50	<0.5	<0.5	<0.5	<0.5
02/22/93	<50	<0.5	<0.5	<0.5	<0.5
03/15/93	<50	<0.5	<0.5	<0.5	<0.5
04/09/93	<50	<0.5	<0.5	<0.5	<0.5
05/13/93	<50	<0.5	<0.5	<0.5	<0.5
06/04/93	<50	<0.5	<0.5	<0.5	<0.5
07/20/93	<50	<0.5	<0.5	<0.5	<0.5
08/16/93	<50	<0.5	<0.5	<0.5	<0.5
09/13/93	<50	<0.5	<0.5	<0.5	<0.5

ppb = Parts per billion
< = Denotes minimum laboratory detection limit.
NS = Not sampled



PACIFIC ENVIRONMENTAL GROUP, INC.

APPROXIMATE SCALE
0 150 300 FEET

ARCO SERVICE STATION 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

GROUNDWATER ELEVATION CONTOUR MAP

FIGURE: 1
PROJECT: 330-06.05

01/05/94

N

VIA MANZANAS

RESIDENTIAL

MW-20 ∅

POTRERO COURT

APARTMENTS

APARTMENTS

VIA ARRIBA

SHOPS

HESPERIAN BOULEVARD

RESTAURANT

MW-19
ND/ND

VIA MAGDALENA

CHURCH
AND SCHOOL

MW-18
ND/ND

MW-17
140/ND

MW-14
ND/ND

MW-24
ND/ND

RESIDENTIAL

RESTAURANT

MW-26
ND/ND

MW-9
ND/ND

MW-21
ND/ND

VIA MEDIA

VIA FLORES

MW-16
ND/ND

RESIDENTIAL

NS E-1A

MW-8
1,900/36

VALLEY

MW-10
4,500/670

MW-25
ND/ND

MW-5
1,400/230

MW-7
ND/ND

MW-15
ND/ND

MW-11
ND/ND

MW-22
ND/ND

VIA ENCINAS COURT

MW-13
ND/ND

RESIDENTIAL

SHOPS

Slight odor noted in this well.

HACIENDA AVENUE

MW-23
ND/ND

RESIDENTIAL

VIA ALAMO

LEGEND

MW-7 ◉ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

E-1A ◓ GROUNDWATER EXTRACTION WELL LOCATION AND DESIGNATION

MW-20 ∅ DESTROYED WELL LOCATION AND DESIGNATION

1,900/36 TPH-g/BENZENE CONCENTRATION IN GROUNDWATER, IN PARTS PER BILLION, 9-14-93 to 9-17-93

ND NOT DETECTED

APPROXIMATE DIRECTION OF GROUNDWATER FLOW

PACIFIC ENVIRONMENTAL GROUP, INC.

APPROXIMATE SCALE

0 150 300 FEET

ARCO SERVICE STATION 0608
17601 Hesperian Boulevard at Hacienda Avenue
San Lorenzo, California

TPH-g/BENZENE CONCENTRATION MAP

FIGURE: 2

PROJECT: 330-06.05

01/05/94

ATTACHMENT A

FIELD AND LABORATORY PROCEDURES

ATTACHMENT A
FIELD AND LABORATORY PROCEDURES

Sampling Procedures

The sampling procedure for each well consists first of measuring the water level and checking for the presence of separate-phase hydrocarbons (SPH), using either an electronic indicator and a clear Teflon bailer or an oil-water interface probe. Wells not containing SPH are then purged of approximately four casing volumes of water (or to dryness) using a centrifugal pump, gas displacement pump, or bailer. Equipment used for the current sampling event is noted on the attached field data sheets. During purging, temperature, pH, and electrical conductivity are monitored in order to document that these parameters are stable prior to collecting samples. After purging, water levels are allowed to partially recover. Groundwater samples are collected using a Teflon bailer, placed into appropriate EPA-approved containers, labeled, logged onto chain-of-custody documents, and transported on ice to a California State-certified laboratory.

Laboratory Procedures

The groundwater samples were analyzed for the presence of total petroleum hydrocarbons calculated as gasoline, benzene, toluene, ethylbenzene, and xylenes. The analyses were performed according to EPA Methods 8015 (modified), 8020, and 5030 utilizing a purge and trap extraction technique. Final detection was by gas chromatography using flame- and photo-ionization detectors. The methods of analysis for the groundwater samples are documented in the certified analytical report. The certified analytical report, chain-of-custody documentation, and field data sheets are presented as Attachment B.

ATTACHMENT B

CERTIFIED ANALYTICAL REPORTS, CHAIN-OF-CUSTODY DOCUMENTATION, AND FIELD DATA SHEETS

SEQUOIA ANALYTICAL
1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Pacific Environmental Group	Client Project ID:	ARCO 608-92-5 / 330-06.15	Sampled: Sep 14-17, 1993
2025 Gateway Place, Ste. 440	Sample Matrix:	Water	Received: Sep 17, 1993
San Jose, CA 95110	Analysis Method:	EPA 5030/8015/8020	Reported: Sep 30, 1993
Attention: Kelly Brown	First Sample #:	309-0915	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 309-0915 TB-1	Sample I.D. 309-0916 MW-5	Sample I.D. 309-0917 MW-7	Sample I.D. 309-0918 MW-8	Sample I.D. 309-0919 MW-9	Sample I.D. 309-0920 MW-10
Purgeable Hydrocarbons	50	N.D.	1,400	N.D.	1,900	N.D.	4,500
Benzene	0.5	N.D.	230	N.D.	36	N.D.	670
Toluene	0.5	N.D.	N.D.	N.D.	1.4	N.D.	N.D.
Ethyl Benzene	0.5	N.D.	6.7	N.D.	32	N.D.	240
Total Xylenes	0.5	N.D.	N.D.	N.D.	8.6	N.D.	7.2
Chromatogram Pattern:		--	Gasoline	--	Gasoline	--	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	1.0	10	1.0	2.0	1.0	20
Date Analyzed:	9/24/93	9/27/93	9/24/93	9/27/93	9/24/93	9/27/93
Instrument Identification:	HP-2	HP-2	HP-2	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	94	106	94	116	99	105

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Karen L. Enstrom
Project Manager

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Pacific Environmental Group	Client Project ID:	ARCO 608-92-5 / 330-06.15	Sampled: Sep 14-17, 1993
2025 Gateway Place, Ste. 440	Sample Matrix:	Water	Received: Sep 17, 1993
San Jose, CA 95110	Analysis Method:	EPA 5030/8015/8020	Reported: Sep 30, 1993
Attention: Kelly Brown	First Sample #:	309-0921	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 309-0921 MW-11	Sample I.D. 309-0922 MW-13	Sample I.D. 309-0923 MW-14	Sample I.D. 309-0924 MW-15	Sample I.D. 309-0925 MW-16	Sample I.D. 309-0926 MW-17
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	N.D.	N.D.	140
Benzene	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	5.4
Total Xylenes	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	3.9
Chromatogram Pattern:		--	--	--	--	--	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	9/24/93	9/27/93	9/27/93	9/27/93	9/27/93	9/27/93
Instrument Identification:	HP-2	HP-4	HP-4	HP-4	HP-4	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	102	113	101	99	98	107

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Karen L. Enstrom
Project Manager

SEQUOIA ANALYTICAL
1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Pacific Environmental Group	Client Project ID:	ARCO 608-92-5 / 330-06.15	Sampled: Sep 14-17, 1993
2025 Gateway Place, Ste. 440	Sample Matrix:	Water	Received: Sep 17, 1993
San Jose, CA 95110	Analysis Method:	EPA 5030/8015/8020	Reported: Sep 30, 1993
Attention: Kelly Brown	First Sample #:	309-0927	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 309-0927 MW-18	Sample I.D. 309-0928 MW-19	Sample I.D. 309-0929 MW-21	Sample I.D. 309-0930 MW-22	Sample I.D. 309-0931 MW-23	Sample I.D. 309-0932 MW-24
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Benzene	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		--	--	--	--	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	9/27/93	9/27/93	9/27/93	9/27/93	9/27/93	9/27/93
Instrument Identification:	HP-5	HP-5	HP-5	HP-5	HP-5	HP-5
Surrogate Recovery, %: (QC Limits = 70-130%)	117	99	108	102	113	105

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Karen L. Enstrom
Project Manager

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Pacific Environmental Group	Client Project ID:	ARCO 608-92-5 / 330-06.15	Sampled: Sep 14-17, 1993
2025 Gateway Place, Ste. 440	Sample Matrix:	Water	Received: Sep 17, 1993
San Jose, CA 95110	Analysis Method:	EPA 5030/8015/8020	Reported: Sep 30, 1993
Attention: Kelly Brown	First Sample #:	309-0933	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 309-0933 MW-25	Sample I.D. 309-0934 MW-26
Purgeable Hydrocarbons	50	N.D.	N.D.
Benzene	0.5	N.D.	N.D.
Toluene	0.5	N.D.	N.D.
Ethyl Benzene	0.5	N.D.	N.D.
Total Xylenes	0.5	N.D.	N.D.
Chromatogram Pattern:		--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	9/27/93	9/27/93
Instrument Identification:	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	98	99

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Karen L. Enstrom
Project Manager

SEQUOIA ANALYTICAL
1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Pacific Environmental Group
2025 Gateway Place, Ste. 440
San Jose, CA 95110
Attention: Kelly Brown

Client Project ID: ARCO 608-92-5 / 330-06.15
Matrix: Water
QC Sample Group: 3090915-934

Reported: Sep 30, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J.F.	J.F.	J.F.	J.F.
Conc. Spiked:	20	20	20	60
Units:	µg/L	µg/L	µg/L	µg/L
LCS Batch#:	2LCS092793	2LCS092793	2LCS092793	2LCS092793
Date Prepared:	9/27/93	9/27/93	9/27/93	9/27/93
Date Analyzed:	9/27/93	9/27/93	9/27/93	9/27/93
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	100	99	97	99
Control Limits:	70-130	70-130	70-130	70-130
MS/MSD Batch #:	3090924	3090924	3090924	3090924
Date Prepared:	9/27/93	9/27/93	9/27/93	9/27/93
Date Analyzed:	9/27/93	9/27/93	9/27/93	9/27/93
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Matrix Spike % Recovery:	100	100	95	97
Matrix Spike Duplicate % Recovery:	100	100	100	98
Relative % Difference:	0.0	0.0	5.1	1.0

SEQUOIA ANALYTICAL

Karen L. Enstrom
Project Manager

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.

ARCO Products Company

Division of AtlanticRichfieldCompany

330-06.15 **Task Order No.** 608-92-5

Chain of Custody

ARCO Facility no. 0608	City (Facility) San Lorenzo	Project manager (Consultant) Kelly Brown.	Laboratory name Sequoia
ARCO engineer Mike Whelan.	Telephone no. (ARCO)	Telephone no. (Consultant) 408-441-7500	Fax no. (Consultant) 408-441-9107
Consultant name Pacific Environmental Group	Address (Consultant) 2025 Gateway Pl. #440 San Jose Ca. 95110		Contract number

Method of shipment

Special detection Limit/reporting

Special QA/QC

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH Gas EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ VOA ☐ Semi VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐	Lab number
TB-1		2		W		Yes	HCl	9-14-93	—		X										309915 A-B
MW-5		3						9-17-93	09:10												0916 A-C
MW-7								9-14-93	10:00												0917
MW-8								9-14-93	12:10												0918
MW-9								9-14-93	11:20												0919
MW-10								9-17-93	08:50												0920
MW-11								9-14-93	15:45												0921
MW-13								9-14-93	09:15												0922
MW-14								9-15-93	16:00												0923
MW-15								9-17-93	07:50												0924
MW-16								9-17-93	08:20												0925
MW-17								9-16-93	15:00												0926
MW-18								9-16-93	14:35												0927
MW-19								9-16-93	13:05												0928
SR ~~MW-20~~								9- -93													SR
MW-21								9-16-93	12:05												0929 A-C

Remarks: There is not an MW-20 Sample.

Lab number

Turnaround time

- Priority Rush 1 Business Day ☐
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☒

Condition of sample:

Temperature received:

	Date	Time		Date	Time
Relinquished by sampler	9-11-93	13:05	Received by	9/17/93	13:05
Relinquished by			Received by		
Relinquished by			Received by laboratory		

ARCO Products Company 330-06.15 **Task Order No.** 608-92-5 **Chain of Custody**

Division of AtlanticRichfieldCompany

ARCO Facility no. 0608	City (Facility) San Lorenzo	Project manager (Consultant) Kelly Brown	Laboratory name Sequoia
ARCO engineer Mike Whelan	Telephone no. (ARCO) —	Telephone no. (Consultant) 408-441-7500 / Fax no. (Consultant) 408-441-9102	Contract number
Consultant name Pacific Env. Group		Address (Consultant) 2025 Gateway Pl. #440 San Jose, 95110	

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH Gas EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ VOA ☐ Semi VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐		
MW-22		3		W		Yes	HCl	9-16-93	11:40		X							309	0930		A	-C
MW-23		↓		↓		↓	↓	9-15-93	13:05		↓							↓	0931			↓
MW-24		↓		↓		↓	↓	9-14-93	14:45		↓							↓	0932			↓
MW-25		↓		↓		↓	↓	9-14-93	10:30		↓							↓	0933			↓
MW-26		↓		↓		↓	↓	9-14-93	15:10		↓							↓	0934			↓

Method of shipment

Special detection Limit/reporting

Special QA/QC

Remarks

Lab number

Turnaround time

Priority Rush 1 Business Day ☐

Rush 2 Business Days ☐

Expedited 5 Business Days ☐

Standard 10 Business Days ☒

Condition of sample:

Temperature received:

Relinquished by sampler	Date	Time	Received by	Date	Time
[signature]	9/17/93	13:05	Kyle Anderson	9/17/93	13:05
Relinquished by	Date	Time	Received by		
Relinquished by	Date	Time	Received by laboratory	Date	Time

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Pacific Environmental Group	Client Project ID:	Arco #608-91-5/330-06.12	Sampled: Jul 20, 1993
620 Contra Costa Blvd., Ste. 209	Sample Matrix:	Water	Received: Jul 21, 1993
Pleasant Hill, CA 94523	Analysis Method:	EPA 5030/8015/8020	Reported: Aug 4, 1993
Attention: Kelly Brown	First Sample #:	307-0845	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 307-0845 INFL	Sample I.D. 307-0846 EFFL
Purgeable Hydrocarbons	50	200	N.D.
Benzene	0.5	12	N.D.
Toluene	0.5	0.91	N.D.
Ethyl Benzene	0.5	8.2	N.D.
Total Xylenes	0.5	29	N.D.
Chromatogram Pattern:		Gasoline	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	7/28/93	7/28/93
Instrument Identification:	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	101	97

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Karen L. Enstrom
Project Manager

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Pacific Environmental Group	Client Project ID:	Arco #608-91-5/330-06.12	Sampled:	Jul 20, 1993
620 Contra Costa Blvd., Ste. 209	Sample Descript:	Water, EFFL	Received:	Jul 21, 1993
Pleasant Hill, CA 94523			Analyzed:	Jul 26, 1993
Attention: Kelly Brown	Lab Number:	307-0846	Reported:	Aug 4, 1993

LABORATORY ANALYSIS

Analyte	Detection Limit mg/L	Sample Results mg/L
Chemical Oxygen Demand	20	N.D.
Total Suspended Solids	1.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Karen L. Enstrom
Project Manager

SEQUOIA ANALYTICAL

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(510) 686-9600 • FAX (510) 686-9689

Pacific Environmental Group	Client Project ID:	Arco #608-91-5/330-06.12	Sampled:	Jul 20, 1993
620 Contra Costa Blvd., Ste. 209	Sample Descript:	Water	Received:	Jul 21, 1993
Pleasant Hill, CA 94523	Analysis for:	pH		
Attention: Kelly Brown	First Sample #:	307-0846	Analyzed:	Jul 21, 1993
			Reported:	Aug 4, 1993

LABORATORY ANALYSIS FOR: pH

Sample Number	Sample Description	Detection Limit	Sample Result
307-0846	EFFL	N/A	7.0

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Karen L. Enstrom
Project Manager

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Pacific Environmental Group	Client Project ID:	Arco #608-91-5/330-06.12
620 Contra Costa Blvd., Ste. 209	Matrix:	Water
Pleasant Hill, CA 94523		
Attention: Kelly Brown	QC Sample Group	3070845-46

Reported: Aug 4, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J.F.	J.F.	J.F.	J.F.
Conc. Spiked:	20	20	20	60
Units:	µg/L	µg/L	µg/L	µg/L
LCS Batch#:	1LCS072893	1LCS072893	1LCS072893	1LCS072893
Date Prepared:	7/28/93	7/28/93	7/28/93	7/28/93
Date Analyzed:	7/28/93	7/28/93	7/28/93	7/28/93
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	95	94	99	101
Control Limits:	70-130	70-130	70-130	70-130
MS/MSD Batch #:	3070937	3070937	3070937	3070937
Date Prepared:	7/28/93	7/28/93	7/28/93	7/28/93
Date Analyzed:	7/28/93	7/28/93	7/28/93	7/28/93
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Matrix Spike % Recovery:	100	100	100	102
Matrix Spike Duplicate % Recovery:	95	95	100	98
Relative % Difference:	5.1	5.1	0.0	4.0

SEQUOIA ANALYTICAL

Karen L. Enstrom
Project Manager

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
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Pacific Environmental Group	Client Project ID:	Arco #608-91-5/330-06.12
620 Contra Costa Blvd., Ste. 209	Matrix:	Water
Pleasant Hill, CA 94523		
Attention: Kelly Brown	QC Sample Group: 307-0846	Reported: Aug 4, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Chemical Oxygen Demand
Method:	EPA 410.4
Analyst:	M.N.
Conc. Spiked:	250
Units:	mg/L
LCS Batch#:	410.4MN07E-1
Date Prepared:	7/26/93
Date Analyzed:	7/26/93
Instrument I.D.#:	Spectrophotometer Model 340
LCS % Recovery:	95
Control Limits:	90-110

MS/MSD Batch #:	3070818
Date Prepared:	7/26/93
Date Analyzed:	7/26/93
Instrument I.D.#:	Spectrophotometer Model 340
Matrix Spike % Recovery:	82
Matrix Spike Duplicate % Recovery:	90
Relative % Difference:	9.3

SEQUOIA ANALYTICAL

Karen L. Enstrom
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Pacific Environmental Group
620 Contra Costa Blvd., Ste. 209
Pleasant Hill, CA 94523
Attention: Kelly Brown

Client Project ID: Arco #608-91-5/330-06.12

QC Sample Group: 307-0846

Reported: Aug 4, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	pH	Total Suspended Solids
Method:	EPA 150.1	EPA 160.1
Analyst:	M.N.	M.N.
Reporting Units:	pH Units	mg/L
Date Analyzed:	Jul 21, 1993	Jul 26, 1993
QC Sample #:	307-0846	307-0818
Sample Conc.:	7.0	22
Spike Conc. Added:	N/A	N/A
Conc. Matrix Spike:	N/A	N/A
Matrix Spike % Recovery:	N/A	N/A
Conc. Sample Duplicate:	7.0	19
Matrix Spike Duplicate % Recovery:	N/A	N/A
Relative % Difference:	0.0	15

SEQUOIA ANALYTICAL

Karen L. Enstrom
Project Manager

$$\text{\% Recovery:} \quad \frac{\text{Conc. of M.S. - Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$$

$$\text{Relative \% Difference:} \quad \frac{\text{Conc. of M.S. - Conc. of M.S.D.}}{\text{(Conc. of M.S. + Conc. of M.S.D.) / 2}} \times 100$$

ARCO Products Company
Division of AtlanticRichfieldCompany

330-06.12 Task Order No. 608-91-5

Chain of Custody

ARCO Facility no. 0608	City (Facility) San Lorenzo	Project manager (Consultant) Kelly Brown.	Laboratory name Sequoia
ARCO engineer Mike Whelan	Telephone no. (ARCO)	Telephone no. (Consultant) 408-441-7500	Fax no. (Consultant) 408-441-9102
Consultant name Pacific Env. Group.	Address (Consultant) 2025 Gateway Pl. #440 San Jose 95110		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ Semi VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐	C.O.D.	pH / TSS
EFFL		3		X		X	HCl	7-20-93	17:15		X					8270 84 5			A-C			
EFFL		3		↓		↓	HCl	↓	17:10		X				↓	8270 84 6			A-F			
EFFL		2		↓		↓	H_2SO_4	↓	↓							~~8270 84 7~~			~~A-B~~		X	
EFFL		1		↓		↓	NP	↓	↓						↓	~~8270 84 8~~						X

Special detection Limit/reporting

Special QA/QC

Remarks: pH analysis by 17:10 7-22-93

Lab number

Turnaround time

- Priority Rush 1 Business Day ☐
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☒

Condition of sample:

Temperature received:

	Date	Time	
Relinquished by sampler	7-21-93	9:35	Received by Michelle Mavrovich
Relinquished by Michelle Mavrovich	7/21/93	10:25	Received by
Relinquished by	Date	Time	Received by laboratory LaVon Stark — Date 7/21/93 — Time 10:26am

White — Return to ARCO Environmental Engineering; Pink copy — Consultant

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Pacific Environmental Group	Client Project ID:	Arco #608-91-5/San Lorenzo	Sampled: Aug 16, 1993
2025 Gateway Place, Ste. 440	Sample Matrix:	Water	Received: Aug 17, 1993
San Jose, CA 95110	Analysis Method:	EPA 5030/8015/8020	Reported: Aug 25, 1993
Attention: Kelly Brown	First Sample #:	308-0601	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 308-0601 INFL	Sample I.D. 308-0602 EFFL
Purgeable Hydrocarbons	50	150	N.D.
Benzene	0.5	4.9	N.D.
Toluene	0.5	0.63	N.D.
Ethyl Benzene	0.5	2.9	N.D.
Total Xylenes	0.5	15	N.D.
Chromatogram Pattern:		Gasoline	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	8/19/93	8/19/93
Instrument Identification:	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	93	92

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Karen L. Enstrom
Project Manager

SEQUOIA ANALYTICAL
1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Pacific Environmental Group
2025 Gateway Place, Ste. 440
San Jose, CA 95110
Attention: Kelly Brown

Client Project ID: Arco #608-91-5/San Lorenzo
Matrix: Water

QC Sample Group: 3080601 & 602

Reported: Aug 25, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J.F.	J.F.	J.F.	J.F.
Conc. Spiked:	20	20	20	60
Units:	µg/L	µg/L	µg/L	µg/L
LCS Batch#:	2LCS081993	2LCS081993	2LCS081993	2LCS081993
Date Prepared:	8/19/93	8/19/93	8/19/93	8/19/93
Date Analyzed:	8/19/93	8/19/93	8/19/93	8/19/93
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
LCS % Recovery:	93	94	94	95
Control Limits:	70-130	70-130	70-130	70-130
MS/MSD Batch #:	3080601	3080601	3080601	3080601
Date Prepared:	8/19/93	8/19/93	8/19/93	8/19/93
Date Analyzed:	8/19/93	8/19/93	8/19/93	8/19/93
Instrument I.D.#:	HP-4	HP-4	HP-4	HP-4
Matrix Spike % Recovery:	120	100	115	122
Matrix Spike Duplicate % Recovery:	130	105	120	128
Relative % Difference:	8.0	4.9	4.2	4.8

SEQUOIA ANALYTICAL

Karen L. Enstrom
Project Manager

Please Note:
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.

ARCO Products Company ◆ Division of AtlanticRichfieldCompany — 330-06.12 — **Task Order No.** 608-91-5 — **Chain of Custody**

ARCO Facility no. 0608	City (Facility) San Lorenzo	Project manager (Consultant) Kelly Brown	Laboratory name Sequoia
ARCO engineer Mike Whelan	Telephone no. (ARCO)	Telephone no. (Consultant) 408-441-7500	Fax no. (Consultant) 408-441-7790
Consultant name Pacific Env. Group	Address (Consultant) 2025 Gateway Place #440 San Jose 95050		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015 Grg S	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ Semi VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐		
INFL		3		W		X	HCl	8-16-93	14:30		X				3080601				A	C		
EFFL		3		W		X	HCl	8-16-93	14:25		X				↓	0602			J			

Special detection Limit/reporting

Special QA/QC

Remarks

Lab number

Turnaround time

- Priority Rush 1 Business Day ☐
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☒

Method of shipment

Condition of sample:

Temperature received:

Relinquished by sampler	Date 8-17-93	Time 10:57
Relinquished by	Date	Time
Relinquished by	Date	Time

Received by Melissa Cuevas		
Received by		
Received by laboratory	Date	Time

White copy — ARCO Environmental Engineering; Pink copy — Consultant

SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Pacific Environmental Group	Client Project ID:	Arco #0608-91-5 / 330-06.12	Sampled: Sep 13, 1993
2025 Gateway Place, Ste. 440	Sample Matrix:	Water	Received: Sep 16, 1993
San Jose, CA 95110	Analysis Method:	EPA 5030/8015/8020	Reported: Sep 29, 1993
Attention: Kelly Brown	First Sample #:	309-0876	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 309-0876 INFL	Sample I.D. 309-0877 EFFL
Purgeable Hydrocarbons	50	80	N.D.
Benzene	0.5	2.2	N.D.
Toluene	0.5	N.D.	N.D.
Ethyl Benzene	0.5	N.D.	N.D.
Total Xylenes	0.5	4.8	N.D.
Chromatogram Pattern:		Gasoline	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	9/24/93	9/24/93
Instrument Identification:	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	104	105

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Karen L. Enstrom
Project Manager

SEQUOIA ANALYTICAL
1900 Bates Avenue • Suite LM • Concord, California 94520
(510) 686-9600 • FAX (510) 686-9689

Pacific Environmental Group	Client Project ID:	Arco #0608-91-5 / 330-06.12
2025 Gateway Place, Ste. 440	Matrix:	Water
San Jose, CA 95110		
Attention: Kelly Brown	QC Sample Group: 3090876-77	Reported: Sep 29, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	J.F.	J.F.	J.F.	J.F.
Conc. Spiked:	20	20	20	60
Units:	µg/L	µg/L	µg/L	µg/L
LCS Batch#:	1LCS092493	1LCS092493	1LCS092493	1LCS092493
Date Prepared:	9/24/93	9/24/93	9/24/93	9/24/93
Date Analyzed:	9/24/93	9/24/93	9/24/93	9/24/93
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
LCS % Recovery:	102	102	101	103
Control Limits:	70-130	70-130	70-130	70-130
MS/MSD Batch #:	3090915	3090915	3090915	3090915
Date Prepared:	9/24/93	9/24/93	9/24/93	9/24/93
Date Analyzed:	9/24/93	9/24/93	9/24/93	9/24/93
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2
Matrix Spike % Recovery:	105	105	110	110
Matrix Spike Duplicate % Recovery:	105	105	105	110
Relative % Difference:	0.0	0.0	4.7	0.0

SEQUOIA ANALYTICAL

Karen L Enstrom
Project Manager

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.

ARCO Products Company ◆ Division of AtlanticRichfieldCompany — 330-06.12 — **Task Order No.** 0608-91-5 — **Chain of Custody**

ARCO Facility no. 0608	City (Facility) San Lorenzo	Project manager (Consultant) Kelly Brown	Laboratory name Sequoia.
ARCO engineer Mike Whelan.	Telephone no. (ARCO) —	Telephone no. (Consultant) 408-441-7500	Fax no. (Consultant) 408-441-9102 — Contract number
Consultant name Pacific Environmental Group	Address (Consultant) 2025 Gateway #440 San Jose Ca. 95110		Method of shipment

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH gas EPA 602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Semi Metals ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐		
INFL		3		W		Y	HCl	9-13-93	12:05		X						309087			6	A-C	Special detection Limit/reporting
EFFL		3		W		Y	HCl	9-13-93	12:00		X						↓ 0877			↓	↓	
																				1		Special QA/QC
																						Remarks
																						Lab number

Condition of sample:

Temperature received:

	Date	Time	
Relinquished by sampler	9-16-93	9:00	Received by
Relinquished by			Received by
Relinquished by			Received by laboratory

Turnaround time
- Priority Rush 1 Business Day
- Rush 2 Business Days
- Expedited 5 Business Days
- Standard 10 Business Days

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant

WELL SAMPLING REQUEST

TE INFORMATION FORM

Identification

\# 330-06.15

tion # 0608

te Address: 17601 Hesperian Blvd. San Lorenzo Ca.

ounty: Alameda.

oject Manager: Kelly Brown

equestor: Roger Hoffmore

ient: Arco

ient P.O.C.: Mike Whelan.

ate of request: 9-93

Project Type

- ☐ 1st Time visit
- ☒ Quarterly
  - ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th
- ☐ Monthly
- ☐ Semi-Monthly
- ☐ Weekly
- ☐ One time event
- ☐ Other:

Ideal field date(s):

Prefield Contacts/Permits

- ☐ Cal Trans
- ☐ County
- ☐ City
- ☒ Arco Private District Mgr 1wk notice
- ☐ Multi-Consultant Scheduling

Date(s):

Purge Water Containment:

- ☐ Drums
- ☒ Treatment System Use in line Filter
- ☐ Other Describe:

Field Tasks

- ☒ H_2O levels E-1A, MW5, MW-7 to MW-11, MW-13 to MW26
- ☒ H_2O Sampling Gas/BTEX analysis for MW-5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, MW-18, 19, 20, 21, 22, 23, 24, 25, 26, (E 'A' is the INFL sample from OBM)
- ☐ Well Development
- ☐ Other:

Describe task (i.e: Well groups and analytical params):

ctivities occuring on site
(: remedial system construction, ongoing projects, etc.)

(Please attach: Site Map, Well Information Data, Site Safety Plan, Well logs as appropriate)

Budgeted hours:

Actual hours; On-Site: See Comments →

Mob-de-Mob: 1.5 Mob 1 demob

Site Safety

Wells	Concerns

- ☐ Flash Safety
- ☐ Flagman
- ☒ Cones
- ☐ Barricades
- ☐ No Turn/Lane Closed sign

Other:

Comments, remarks, etc. from Field Staff
(include problems encountered and out-of-scope work)

9-13-93 – 2.5 hrs. on site.
9-14-93 – 1 hr. Travel 9 hrs onsite.
9-15-93 – 2 hr. site work
9-16-93 – 1 hr. travel 5 hrs. site work
9-17-93 – 2.5 travel 3 hrs site work
Demob.

Well MW-20 could not be Sampled
Kelly Brown notified 9-15-93

- ☐ All Wells secured

Completed by: Scott Aste Date: 9-17-93

ACIFIC ENVIRONMENTAL GROUP, INC.

Checked by:

PITS Update:

ARCO Products Company — Chain of Custody

Division of AtlanticRichfieldCompany

330-06.15 Task Order No. 608-92-15

ARCO Facility no. 0608	City (Facility) San Lorenzo	Project manager (Consultant) Kelly Brown	Laboratory name Sequoia
ARCO engineer Mike Whelan.	Telephone no. (ARCO)	Telephone no. (Consultant) 408-441-7500	Fax no. (Consultant) 408-441-9107	Contract number
Consultant name Pacific Environmental Group	Address (Consultant) 2025 Gateway Pl. #440 San Jose Ca. 95110		Method of shipment

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH Gas EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ VOA ☐ Semi VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐			
TB-1		2		W		Yes	HCl	9-14-93	—		X												
MW-5		3						9-17-93	09:10														
MW-7								9-14-93	10:00														
MW-8								9-14-93	12:10														
MW-9								9-14-93	11:20														
MW-10								9-17-93	08:50														
MW-11								9-14-93	15:45														
MW-13								9-14-93	09:15														
MW-14								9-15-93	16:00														
MW-15								9-17-93	07:50														
MW-16								9-17-93	08:20														
MW-17								9-16-93	15:00														
MW-18								9-16-93	14:35														
MW-19								9-16-93	13:05														
SP ~~MW-20~~								9-16-93															SP
MW-21								9-16-93	12:05														

Special detection Limit/reporting

Special QA/QC

Remarks: There isn't an MW-20 Sample.

Lab number

Turnaround time

- Priority Rush 1 Business Day ☐
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☒

Condition of sample:

Temperature received:

	Date	Time		Date	Time
Relinquished by sampler	9-17-93	13:05	Received by	9/17/93	12:05
Relinquished by			Received by		
Relinquished by			Received by laboratory		

ARCO Products Company ◆ Division of AtlanticRichfieldCompany 330-06.15 **Task Order No.** 608-92-5

Chain of Custody

ARCO Facility no. 0608	City (Facility) San Lorenzo	Project manager (Consultant) Kelly Brown	Laboratory name Sequoia
ARCO engineer Mike Whelan	Telephone no. (ARCO) —	Telephone no. (Consultant) 408 441-7500	Fax no. (Consultant) 408-441-9102
Consultant name Pacific Env. Group	Address (Consultant) 2025 Gateway Pl # 440 San Jose 95110		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015 Gas S	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ Semi VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐		
MW-22		3		W		Yes	HCl	9-14-93	11:40		X											
MW-23								9-15-93	13:05													
MW-24								9-14-93	14:45													
MW-25								9-14-93	10:30													
MW-26								9-14-93	15:10													

Method of shipment

Special detection Limit/reporting

Special QA/QC

Remarks

Lab number

Turnaround time

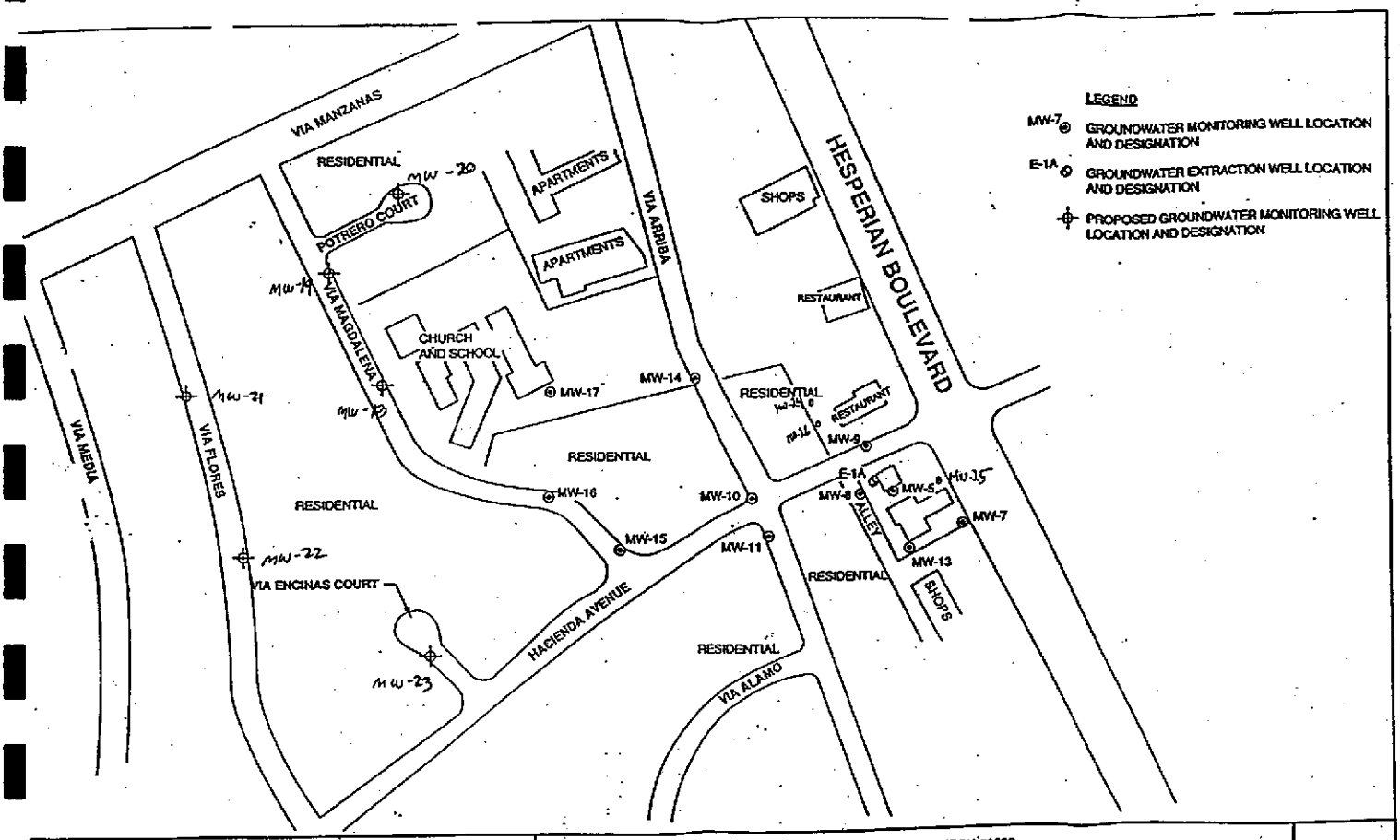
- Priority Rush 1 Business Day ☐
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☒

Condition of sample:

Temperature received:

	Date	Time	
Relinquished by sampler	9-17-93	13:05	Received by Kristi Anderson 9/17/93 13:05
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory / Date / Time

White copy — Laboratory; Yellow copy — Consultant



PACIFIC ENVIRONMENTAL GROUP, INC.	APPROXIMATE SCALE: 1" = 150'	ARCO SERVICE STATION #0608 17601 Hesperian Boulevard at Hacienda Avenue San Lorenzo, California PROPOSED WELL LOCATION MAP	FIGURE: 1 PROJECT: 330-06.13

32C-421

FIELD F. ORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-06.12 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo DATE: 9-13-93

CLIENT/STATION NO.: Arco 0608 FIELD TECHNICIAN: Scott Pisle DAY OF WEEK: Monday

PROBE TYPE/ID No.
- ☐ Oil/Water IF/ ____
- ☒ H_2O level indicator ____
- ☐ Other: ____

Dtw Order	Well ID	Time	Surface Seal	Lid Secure	Gasket	Lock	Expanding Cap	Total Depth ToB (feet)	First Depth to Water (feet) TOB/TOC	Second Depth to Water (feet) TOB/TOC	SEPARATE-PHASE HYDROCARBONS (SPH): SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	COLOR: Fresh	Weathered	Gas	Oil	VISCOSITY: Lite	Medium	Heavy	LIQUID REMOVED (gallons): SPH / H_2O
2	E-1A	9:21						—	19.50											
5	MW-5	9:36						~~13.95~~ ~~+8.9 SP~~	~~13.40~~ ~~13.78 SP~~											
4	MW-7	9:33						18.9	13.78											
9	MW-8	9:50						21.7	12.70											
6	MW-9	9:37						18.7	11.87											
8	MW-10	9:45						22.95	12.01											
7	MW-11	9:42						19.2	12.68											
1	MW-13	9:01						23.4	15.09	✓										
12	MW-14	12:52						23.1	10.89											

Comments: *Well MW-14 — 4 inch J plugs will no longer secure well.... Replace 4 in plug with a 3 in. plug where 3 inch casing attaches to 4 inch coupler.

*MW-14:... At time of purging and sampling original 4" J-plug was reconditioned and 3" plug was removed.

FIELD F ORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-06.12 / 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo DATE: 9-13-93

CLIENT/STATION NO.: Arco 0608 FIELD TECHNICIAN: Scott Fiske DAY OF WEEK: Monday

PROBE TYPE/ID No.
- ☐ Oil/Water IF/ _____
- ☒ H_2O level indicator _____
- ☐ Other: _____

Dtw Order	Well ID	Time	Surface Seal	Lid Secure	Gasket	Lock	Expanding Cap	Total Depth TOB (feet)	First Depth to Water (feet) TOB/TOC	Second Depth to Water (feet) TOB/TOC	SEPARATE-PHASE HYDROCARBONS (SPH): SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	COLOR: Fresh	Weathered	Gas	Oil	VISCOSITY: Lite	Medium	Heavy	LIQUID REMOVED (gallons): SPH / H_2O
22	MW-15	15:15						23.5	12.35	✓	—									
21	MW-16	15:12						22.5	12.83	✓	—									
19	MW-17	15:07						23.5	13.66	✓	—									
18	MW-18	15:00						21.7	11.75	✓	—									
17	MW-19	14:57						21.6	11.16	✓	—									
16	MW-20	13:30						See	Comments	below	—									
15	MW-21	13:22						21.9	11.63	✓	—									
14	MW-22	13:18						21.6	12.17	✓	—									
13	MW-23	13:07					✓	21.9	13.23	✓	—									

Comments: *MW-23 needed a 3 inch J plug substitute for the same reason as MW-14
*Well MW-20 was covered by new asphalt. Uncovered well and found no water in well. MW-20 was filled in with gravel and silt.
*MW-19 Replaced 4" J-plug
*MW-23 - Original 4" inch plug reconditioned and 3" substitute plug was removed.

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-06.12. 330-06 15 LOCATION: 17601 Hesperian Blvd. San Lorenzo DATE: 9-13-93

CLIENT/STATION NO.: Arco 0608 FIELD TECHNICIAN: Scott Rise DAY OF WEEK: Monday

PROBE TYPE/ID No.
- ☐ Oil/Water IF/ ____
- ☒ H_2O level
- Indicator ____
- ☐ Other: ____

Dtw Order	Well ID	Time	Surface Seal	Lid Secure	Gasket	Lock	Expanding Cap	Total Depth (feet) TOB	First Depth to Water (feet) TOB/TOC	Second Depth to Water (feet) TOB/TOC	SEPARATE-PHASE HYDROCARBONS (SPH): SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	COLOR: Fresh	Weathered	Gas	Oil	VISCOSITY: Lite	Medium	Heavy	LIQUID REMOVED (gallons): SPH / H_2O
11	MW24	9:58						20.0	14.38	✓										
3	MW-25	9:31						21.3	13.45	✓										
10	MW-26	9:54						19.7	13.70	✓										
20	church well	15:09						—	see comments	13.42										

Comments: *Church well = Top of Box does not exist.... Measurement was taken to Top of Casing

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: —

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☒ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☐ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☒ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot _____ = _____ x Number of Casings _____ = Calculated Purge _____

DATE PURGED: _____ START: _____ END (2400 hr): _____ PURGED BY: _____

DATE SAMPLED: _____ START: _____ END (2400 hr): _____ SAMPLED BY: _____

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR

Cobalt 0-100, Clear, Cloudy, Yellow, Brown | NTU 0-200, Heavy, Moderate, Light, Trace | Strong, Moderate, Faint, None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC

PURGING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
TB-1	9-14-93	—	3	40	VOA	HCl	Gas/BTEX

REMARKS: _____

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: E-1A

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: SP

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 19.50 TOB — TOC
Total depth: — TOB — TOC
Date: 9-13-93 Time (2400): 9:21

Probe Type and I.D. #
☐ Oil/Water interface
☒ Electronic indicator
☐ Other;

CASING DIAMETER	GAL/ LINEAR FT.
☐ 2	0.17
☐ 3	0.38
☐ 4	0.66
☐ 4.5	0.83
☐ 5	1.02
☐ 6	1.5
☐ 8	2.6

SAMPLE TYPE
☒ Groundwater
☐ Duplicate
☒ Extraction well
☐ Trip blank
☐ Field blank
☐ Equipment blank
☐ Other;

TD ____ - DTW ____ = ____ x Gal/Linear Foot ____ = ____ x Number of Casings ____ = Calculated Purge ____

DATE PURGED: — START: END (2400 hr): PURGED BY:

DATE SAMPLED: 9-13-93 START: 12:00 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	~~ODOR~~
12:00	Constant flow	6.88	928	70.4	clear	clear	[illegible]

Pumped dry Yes / (No)

COLOR: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
TURBIDITY: NTU 0-200, Heavy, Moderate, Light, Trace
ODOR: Strong, Moderate, Faint, None

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC ____

PURGING EQUIPMENT/I.D. #
☐ Bailer:
☐ Centrifugal Pump:
☐ Other:
☐ Airlift Pump:
☒ Dedicated:

SAMPLING EQUIPMENT/I.D. #
☐ Bailer:
☒ Dedicated:
☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
~~SP-EFF'~~							
INFL (330-06.12)	9-13-93	12:00	3	40	VOA	HCl	Gas/BTEX

REMARKS: C° = 19.3° D.O. = 1.91 ppm.

E-1A is sampled during O&M work. Sample is sent to lab under 330-06.12 Job number and labelled INFL

SIGNATURE: [signature]

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-5

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 13.45 TOB — TOC
Total depth: 13.95 TOB — TOC
Date: 9-16-93 Time (2400):

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other;

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☐	3	0.38
☒	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other;

TD 13.95 - DTW 13.45 = 0.50 x Gal/Linear Foot 0.66 = 0.33 x Number of Casings 5 = Calculated Purge 1.65

DATE PURGED: 9-16-93 START: 16:05 END (2400 hr): 16:07 PURGED BY: SP

DATE SAMPLED: 9-17-93 START: 9:10 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
16.07	½ bailer	6.06	1101	64.5	cloudy	Mod.	Strong

Pumped dry (Yes) / No

Cobalt 0-100, Clear, Cloudy, Yellow, Brown | NTU 0-200, Heavy, Moderate, Light, Trace | Strong, Moderate, Faint, None

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: 13.42 TOB/TOC 6.22 1066 64.8 clear clear strong

PURGING EQUIPMENT/I.D. #
- ☒ Bailer: T-6
- ☐ Airlift Pump:
- ☐ Centrifugal Pump:
- ☐ Dedicated:
- ☐ Other:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: T-6
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-5	9-17-93	9:10	3	40	VOA	ACL	Gas/BTEX

REMARKS: Well had only 0.50' of water. Removed about ½ bailer and took a reading. DTW = 13.78. Well returned to original DTW overnight. Took a grab sample. D.O. = 4.73 ppm. Temp = 18.2 C°

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-7

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 13.81 TOB — TOC
Total depth: 18.9 TOB — TOC
Date: 9-14-93 Time (2400): 9:32

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other;

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☒	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other;

TD 18.9 - DTW 13.81 = 5.09 x Gal/Linear Foot 0.38 = 1.93 x Number of Casings 5 = Calculated Purge 9.67

DATE PURGED: 9-14-93 START: 9:43 END (2400 hr): 9:53 PURGED BY: SP

DATE SAMPLED: 9-14-93 START: 10:00 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
9:46	3.5	6.91	973	66.7	clear	trace	None
9:50	7	6.89	982	67.3	↓	↓	↓
9:53	10	6.87	983	67.5	↓	↓	↓

Pumped dry Yes / (No)

Cobalt 0-100 Clear Cloudy Yellow Brown | NTU 0-200 Heavy Moderate Light Trace | Strong Moderate Faint None

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC ____

PURGING EQUIPMENT/I.D. #
- ☒ Bailer: 17-5
- ☐ Airlift Pump:
- ☐ Centrifugal Pump:
- ☐ Dedicated:
- ☐ Other:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-5
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-7	9-14-93	10:00	3	40	VOA	ACL	Gas/BTEX

REMARKS: D.O = 2.67 ppm
Temp = 19.3 C°

SIGNATURE:

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-8

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 12.74 TOB — TOC
Total depth: 18.7 TOB — TOC
Date: 9-14-93 Time (2400): 11:37

Probe Type and I.D. #: ☐ Oil/Water interface ☒ Electronic indicator ☐ Other;

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☒	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
☒ Groundwater
☐ Duplicate
☐ Extraction well
☐ Trip blank
☐ Field blank
☐ Equipment blank
☐ Other;

TD 18.7 - DTW 12.74 = 5.96 x Gal/Linear Foot 0.38 = 2.26 x Number of Casings 5 = Calculated Purge 11.32

DATE PURGED: 9-14-93 START: 11:54 END (2400 hr): 12:04 PURGED BY: SP
DATE SAMPLED: 9-14-93 START: 12:10 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR
11:58	4	6.58	912	68.7	clear	trace	strong
12:01	8	6.57	909	68.6	cloudy	light	↓
12:04	11.5	6.58	909	68.6	↓	↓	↓

Pumped dry Yes / (No)

Cobalt 0-100: Clear, Cloudy, Yellow, Brown
NTU 0-200: Heavy, Moderate, Light, Trace
Strong: Moderate, Faint, None

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: — TOB/TOC

PURGING EQUIPMENT/I.D. #
☒ Bailer: 17-3 ☐ Airlift Pump: ☐ Centrifugal Pump: ☐ Dedicated: ☐ Other:

SAMPLING EQUIPMENT/I.D. #
☒ Bailer: 17-3 ☐ Dedicated: ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-8	9-14-93	12:10	3	40	VOA	ACL	Gas/BTEX

REMARKS: D.O. = 2.26 ppm.
Temp = 20.1 C°

SIGNATURE:

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-9

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 11.89 TOB — TOC
Total depth: 18.7 TOB — TOC
Date: 9-14-93 Time (2400): 11:03

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other:

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☒	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other:

TD 18.7 - DTW 11.89 = 6.81 x Gal/Linear Foot 0.38 = 2.58 x Number of Casings 5 = Calculated Purge 12.93

DATE PURGED: 9-14-93 START: 11:06 END (2400 hr): 11:16 PURGED BY: SP

DATE SAMPLED: 9-14-93 START: 11:20 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
11:09	4.5	6.63	997	68.5	clear	trace	None
11:13	9	6.63	1002	68.8	cloudy	light	↓
11:16	13	6.59	1003	68.8	↓	↓	↓

Pumped dry Yes / (No)

Cobalt 0-100: Clear, Cloudy, Yellow, Brown
NTU 0-200: Heavy, Moderate, Light, Trace
Strong, Moderate, Faint, None

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC ____

PURGING EQUIPMENT/I.D. #
- ☒ Bailer: 17-4
- ☐ Airlift Pump:
- ☐ Centrifugal Pump:
- ☐ Dedicated:
- ☐ Other:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-4
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-9	9-14-93	11:20	3	40	VOA	HCl	Gas/BTEX

REMARKS: D.O. = 1.95 ppm.
Temp = 20.8 C°

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-10

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 12.09 TOB — TOC
Total depth: 22.95 TOB — TOC
Date: 9-17-93 Time (2400): 8:36

Probe Type and I.D. #: ☐ Oil/Water interface ☒ Electronic indicator ☐ Other;

CASING DIAMETER	GAL/LINEAR FT.
☐ 2	0.17
☒ 3	0.38
☐ 4	0.66
☐ 4.5	0.83
☐ 5	1.02
☐ 6	1.5
☐ 8	2.6

SAMPLE TYPE: ☒ Groundwater ☐ Duplicate ☐ Extraction well ☐ Trip blank ☐ Field blank ☐ Equipment blank ☐ Other;

TD 22.95 - DTW 12.09 = 10.84 x Gal/Linear Foot 0.38 = 4.11 x Number of Casings 5 = Calculated Purge 20.57

DATE PURGED: 9-17-93 START: 8:39 END (2400 hr): 8:43 PURGED BY: SP

DATE SAMPLED: 9-17-93 START: 8:50 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
8:41	7	6.34	1077	63.4	clear	trace	Hc
8:42	14	6.23	1102	65.1	↓	↓	↓
8:43	20.5	6.25	1101	65.5	↓	↓	↓

COLOR: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
TURBIDITY: NTU 0-200, Heavy, Moderate, Light, Trace
ODOR: Strong, Moderate, Faint, None

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC

PURGING EQUIPMENT/I.D. #

☐ Bailer: ☐ Airlift Pump:
☒ Centrifugal Pump: ☐ Dedicated:
☐ Other:

SAMPLING EQUIPMENT/I.D. #

☒ Bailer: 17-5
☐ Dedicated:
☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-10	9-17-93	8:50	3	40	VOA	HCl	Gas/BTEX

REMARKS: D.O. = 5.23 ppm.
Temp. = 17.1 C°

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06-15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-11

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 12.81 TOB — TOC
Total depth: 19.2 TOB — TOC
Date: 9-14-93 Time (2400): 15:21

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other;

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☒	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other;

TD 19.2 - DTW 12.81 = 6.39 x Gal/Linear Foot 0.36 = 2.42 x Number of Casings 5 = Calculated Purge 12.14

DATE PURGED: 9-14-93 START: 15:25 END (2400 hr): 15:36 PURGED BY: SP

DATE SAMPLED: 9-14-93 START: 15:45 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
15:28	4	6.65	961	66.8	Cloudy	Light	Mod.
15:32	8	6.54	953	66.2	↓	↓	↓
15:36	12	6.52	950	66.1	↓	↓	↓

Cobalt 0-100: Clear, Cloudy, Yellow, Brown
NTU 0-200: Heavy, Moderate, Light, Trace
Strong, Moderate, Faint, None

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC ____

PURGING EQUIPMENT/I.D. #
- ☒ Bailer: 17-2
- ☐ Airlift Pump:
- ☐ Centrifugal Pump:
- ☐ Dedicated:
- ☐ Other:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-2
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-11	9-14-93	15:45	3	40	VOA	HCl	Gas/BTEX

REMARKS: D.O. = 3.68 ppm.
Temp = 17.9 °C

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-13

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 15.11 TOB — TOC
Total depth: 23.4 TOB — TOC
Date: 9-14-93 Time (2400): 8:53

Probe Type and I.D. #: ☐ Oil/Water interface ☒ Electronic indicator ☐ Other;

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☒	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
☒ Groundwater
☐ Duplicate
☐ Extraction well
☐ Trip blank
☐ Field blank
☐ Equipment blank
☐ Other;

TD 23.4 - DTW 15.11 = 8.29 x Gal/Linear Foot 0.38 = 3.15 x Number of Casings 5 = Calculated Purge 15.75

DATE PURGED: 9-14-93 START: 8:56 END (2400 hr): 9:11 PURGED BY: SP
DATE SAMPLED: 9-14-93 START: 9:15 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
9:00	5.5	6.85	988	66.0	cloudy	light	None
9:05	11	6.88	997	66.1	↓	↓	↓
9:11	16	6.87	997	66.1			

Cobalt 0-100: Clear, Cloudy, Yellow, Brown
NTU 0-200: Heavy, Moderate, Light, Trace
Strong, Moderate, Faint, None

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC ____

PURGING EQUIPMENT/I.D. #
☒ Bailer: 17-7 ☐ Airlift Pump: ____
☐ Centrifugal Pump: ____ ☐ Dedicated: ____
☐ Other: ____

SAMPLING EQUIPMENT/I.D. #
☒ Bailer: 17-7
☐ Dedicated: ____
☐ Other: ____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-13	9-14-93	9:15	3	40	VOA	ACL	Gas/BTEX

REMARKS: D.O. = 2.60 ppm (D.O. using Chemets was shade of blue between 2 and 3)
Temp = 18.1 C

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID No.: MW-14

IENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 10.95 TOB — TOC
Total depth: 23.1 TOB — TOC
Date: 9-15-93 Time (2400): 15:30

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other:

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☒	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other:

TD 23.1 - DTW 10.95 = 12.15 x Gal/Linear Foot 0.38 = 4.61 x Number of Casings 5 = Calculated Purge 23.08

DATE PURGED: 9-15-93 START: 15:41 END (2400 hr): 15:46 PURGED BY: SP

DATE SAMPLED: 9-15-93 START: 16:00 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
15:44	8	6.68	947	68.8	Brown	Mod	None
15:46	15	6.68	915	67.4	↓	↓	↓

Cobalt 0-100: Clear, Cloudy, Yellow, Brown
NTU 0-200: Heavy, Moderate, Light, Trace
Strong, Moderate, Faint, None

Pumped dry (Yes) / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: 11.01 TOB/TOC 6.67 900 68.0 clear trace None

PURGING EQUIPMENT/I.D. #
- ☐ Bailer:
- ☐ Airlift Pump:
- ☒ Centrifugal Pump:
- ☐ Dedicated:
- ☐ Other:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-1
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-14	9-15-93	16:00	3	40	VOA	ACL	Gas/BTEX

REMARKS: D.O. = 4.78 ppm
Temp = 19.3 °C

SIGNATURE:

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-15

IENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 12.43 TOB — TOC
Total depth: 23.5 TOB — TOC
Date: 9-17-93 Time (2400): 7:33

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other;

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☒	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other;

TD 23.5 - DTW 12.43 = 11.07 x Gal/Linear Foot 0.38 = 4.20 x Number of Casings 5 = Calculated Purge 21.03

DATE PURGED: 9-17-93 START: 7:38 END (2400 hr): 7:43 PURGED BY: SP
DATE SAMPLED: 9-17-93 START: 7:50 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
7:40	7	6.13	997	62.6	Clear	clear	
7:41	14	6.09	1017	63.5	"	"	"
7:43	21	6.09	1020	63.6	"	"	"

Cobalt 0-100: Clear, Cloudy, Yellow, Brown
NTU 0-200: Heavy, Moderate, Light, Trace
Strong, Moderate, Faint, None

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC ____

PURGING EQUIPMENT/I.D. #
- ☐ Bailer:
- ☐ Airlift Pump:
- ☒ Centrifugal Pump:
- ☐ Dedicated:
- ☐ Other:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-2.
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-15	9-17-93	7:50	3	40	VOA	ACI	Gas/BTEX

REMARKS: D.O. = 5.36 ppm.
Temp = 16.4 °C

SIGNATURE:

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-16

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 12.90 TOB — TOC
Total depth: 22.5 TOB — TOC
Date: 9-17-93 Time (2400): 7:35

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other;

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☒	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other;

TD 22.5 - DTW 12.90 = 9.60 x Gal/Linear Foot 0.38 = 3.64 x Number of Casings 5 = Calculated Purge 18.24

DATE PURGED: 9-17-93 START: 8:03 END (2400 hr): 8:10 PURGED BY: SP

DATE SAMPLED: 9-17-93 START: 8:20 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
8:05	6	6.07	913	63.1	Brown	Med	None
8:07	12	6.10	918	63.8	↓	↓	↓
8:10	18.5	6.10	933	63.6			

Cobalt 0-100: Clear, Cloudy, Yellow, Brown
NTU 0-200: Heavy, Moderate, Light, Trace
Strong, Moderate, Faint, None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC

PURGING EQUIPMENT/I.D. #
- ☐ Bailer:
- ☐ Airlift Pump:
- ☒ Centrifugal Pump:
- ☐ Dedicated:
- ☐ Other:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-4
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-16	9-17-93	8:20	3	40	VOA	ACI	Gas/BTEX

REMARKS: D.O. = 6.44 ppm.
Temp = 16.3 °C

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL NO: MW-17

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 13.73 TOB — TOC
Total depth: 23.5 TOB — TOC
Date: 9-16-93 Time (2400): 14:46

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other:

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☒	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other:

TD 23.5 - DTW 13.73 = 9.77 x Gal/Linear Foot 0.38 = 3.71 x Number of Casings 5 = Calculated Purge 18.56

DATE PURGED: 9-16-93 START: 14:49 END (2400 hr): 14:55 PURGED BY: SP

DATE SAMPLED: 9-16-93 START: 15:00 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
14:51	6	6.67	920	62.4	cloudy	light	Mod.
14:53	12	6.88	926	63.0	clear	clear	
14:55	18.5	6.91	926	63.1	↓	↓	↓

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC

PURGING EQUIPMENT/I.D. #
- ☐ Bailer:
- ☐ Airlift Pump:
- ☒ Centrifugal Pump:
- ☐ Dedicated:
- ☐ Other:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-1
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-17	9-16-93	15:00	3	40	VOA	HCl	Gas/BTEX

REMARKS: D.O. = 5.88 ppm
Temp = 16.0 C°

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-18

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 11.80 TOB — TOC
Total depth: 21.7 TOB — TOC
Date: 9-16-93 Time (2400): 14:18

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other:

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☒	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other:

TD 21.7 - DTW 11.80 = 9.90 x Gal/Linear Foot 0.38 = 3.76 x Number of Casings 5 = Calculated Purge 18.81

DATE PURGED: 9-16-93 START: 14:20 END (2400 hr): 14:26 PURGED BY: SP

DATE SAMPLED: 9-16-93 START: 14:35 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
14:22	6.5	6.65	1010	67.0	clear	clear	none
14:24	13	6.63	1023	67.5	↓	↓	↓
14:26	19	6.58	1017	67.3	↓	↓	↓

Cobalt 0-100: Clear, Cloudy, Yellow, Brown
NTU 0-200: Heavy, Moderate, Light, Trace
Strong, Moderate, Faint, None

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC ____

PURGING EQUIPMENT/I.D. #
- ☐ Bailer:
- ☐ Airlift Pump:
- ☒ Centrifugal Pump:
- ☐ Dedicated:
- ☐ Other:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-1
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-18	9-16-93	14:35	3	40	VOA	HCl	Gas/BTEX

REMARKS: D.O. = 3.52 ppm. Temp = 18.9 °C

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-19

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 11.26 TOB — TOC
Total depth: 21.6 TOB — TOC
Date: 9-16-93 Time (2400): 12:50

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other;

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☒	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other;

TD 21.6 - DTW 11.26 = 10.34 x Gal/Linear Foot 0.38 = 3.92 x Number of Casings 5 = Calculated Purge 19.64

DATE PURGED: 9-16-93 START: 12:53 END (2400 hr): 13:00 PURGED BY: SP

DATE SAMPLED: 9-16-93 START: 13:05 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
12:56	6.5	6.47	1083	65.9	Clear	Clear	None
12:58	13	6.30	1083	65.9	"	"	"
13:00	19.5	6.29	1075	65.7	"	"	"

Cobalt 0-100: Clear, Cloudy, Yellow, Brown
NTU 0-200: Heavy, Moderate, Light, Trace
Strong, Moderate, Faint, None

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC ____

PURGING EQUIPMENT/I.D. #
- ☐ Bailer:
- ☐ Airlift Pump:
- ☒ Centrifugal Pump:
- ☐ Dedicated:
- ☐ Other:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-7
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-19	9-16-93	13:05	3	40	VOA	HCl	Gas/BTEX

REMARKS: D.O. = 3.59 ppm. Temp = 18.0°C Replaced 4" S. plug. Old one was worn out.

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-20

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: — TOB — TOC
Total depth: — TOB — TOC
Date: 9-14-93 Time (2400):

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other;

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☒	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other;

TD ____ - DTW ____ = ____ x Gal/Linear Foot .038 = ____ x Number of Casings 5 = Calculated Purge ____

DATE PURGED: ~~9-14-93~~ SP START: ____ END (2400 hr): ____ PURGED BY: SP

DATE SAMPLED: ~~9-14-93~~ SP START: ____ END (2400 hr): ____ SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
Well is filled in with gravel and silt. Fill resulted from recent repaving of the court well is located in.							

Pumped dry Yes / No

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC

PURGING EQUIPMENT/I.D. #
- ☐ Bailer:
- ☐ Airlift Pump:
- ☒ Centrifugal Pump:
- ☐ Dedicated:
- ☐ Other:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
SP ~~MW-20~~	9-14-93		3	40	VOA	HCl	Gas/BTEX SP
Not Sampled							

REMARKS: 0.0 ppm
Temp = C°

~~Well did not have a christy box (6-3) at time of purging and sampling. Therefor field measurements were taken at top of casing~~

SIGNATURE: [signature]

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-21

IENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 11.70 TOB — TOC
Total depth: 21.9 TOB — TOC
Date: 9-16-93 Time (2400): 11:47

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other:

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☒	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other:

TD 21.9 - DTW 11.70 = 10.20 x Gal/Linear Foot 0.38 = 3.87 x Number of Casings 5 = Calculated Purge 19.38

DATE PURGED: 9-16-93 START: 11:50 END (2400 hr): 11:56 PURGED BY: SP

DATE SAMPLED: 9-16-93 START: 12:05 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
11:52	6.5	6.46	992	65.3	clear	clear	none
11:54	13	6.35	991	65.6	"	"	"
11:56	19.5	6.31	994	65.4	"	"	"

Cobalt 0-100: Clear, Cloudy, Yellow, Brown
NTU 0-200: Heavy, Moderate, Light, Trace
Strong, Moderate, Faint, None

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: — TOB/TOC —

PURGING EQUIPMENT/I.D. #
- ☐ Bailer:
- ☒ Centrifugal Pump:
- ☐ Airlift Pump:
- ☐ Dedicated:
- ☐ Other:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-6
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-21	9-16-93	12:05	3	40	VOA	ACL	Gas/BTEX

REMARKS: D.O. = 352 ppm
Temp: = 17.9 °C

SIGNATURE:

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-22

IENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 12.24 TOB — TOC
Total depth: 21.6 TOB — TOC
Date: 9-16-93 Time (2400): 11:20

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other;

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☒	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other;

TD 21.6 - DTW 12.24 = 9.36 x Gal/Linear Foot 0.38 = 3.55 x Number of Casings 5 = Calculated Purge 17.78

DATE PURGED: 9-16-93 START: 11:23 END (2400 hr): 11:26 PURGED BY: SP

DATE SAMPLED: 9-16-93 START: 11:40 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
11:25	6	6.32	991	65.4	Cloudy	Light	None
11:26	10	6.42	991	64.2	↓	↓	↓
11:38							

Pumped dry (Yes) / No

Cobalt 0-100: Clear, Cloudy, Yellow, Brown
NTU 0-200: Heavy, Moderate, Light, Trace
Strong, Moderate, Faint, None

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: 12.25 TOB/TOC 6.46 985 64.1 Clear trace None

PURGING EQUIPMENT/I.D. #
- ☐ Bailer:
- ☐ Airlift Pump:
- ☒ Centrifugal Pump:
- ☐ Dedicated:
- ☐ Other:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-5
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-22	9-16-93	11:40	3	40	VOA	ACL	Gas/BTEX

REMARKS: D.O. = 4.06 ppm.
Temp = 17.3 C°

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-23

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 13.27 TOB — TOC
Total depth: 21.9 TOB — TOC
Date: 9-15-93 Time (2400): 12:40

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other;

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☒	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other;

TD 21.9 - DTW 13.27 = 8.63 x Gal/Linear Foot 0.38 = 3.27 x Number of Casings 5 = Calculated Purge 16.39

DATE PURGED: 9-15-93 START: 12:50 END (2400 hr): 12:57 PURGED BY: SP

DATE SAMPLED: 9-15-93 START: 13:05 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
12:53	5.5	6.59	1057	66.1	cloudy	light	none
12:55	11	6.60	1058	65.4	↓	↓	↓
12:57	16.5	6.57	1056	65.3	↓	↓	↓

Cobalt 0-100: Clear, Cloudy, Yellow, Brown
NTU 0-200: Heavy, Moderate, Light, Trace
Strong, Moderate, Faint, None

Pumped dry Yes / (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: — TOB/TOC —

PURGING EQUIPMENT/I.D. #
- ☐ Bailer:
- ☒ Centrifugal Pump:
- ☐ Other:
- ☐ Airlift Pump:
- ☐ Dedicated:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-4
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-23	9-15-93	13:05	3	40	VOA	HCl	Gas/BTEX

REMARKS: D.O. = 3.64 ppm.
Temp = 17.2 C°

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-24

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 14.40 TOB — TOC
Total depth: 20 TOB — TOC
Date: 9-14-93 Time (2400): 14:28

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other;

CASING DIAMETER		GAL/ LINEAR FT.
☒	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other;

TD 20 - DTW 14.40 = 5.60 x Gal/Linear Foot @.17 = 0.95 x Number of Casings 5 = Calculated Purge 4.76

DATE PURGED: 9-14-93 START: 14:30 END (2400 hr): 14:37 PURGED BY: SP

DATE SAMPLED: 9-14-93 START: 14:45 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
14:32	1.5	6.43	1012	69.8	Brown	Heavy	Hydr
14:34	3	6.48	1008	69.6	↓	↓	↓
14:37	4.75	6.50	1004	69.5			

Cobalt 0-100: Clear, Cloudy, Yellow, Brown
NTU 0-200: Heavy, Moderate, Light, Trace
Strong, Moderate, Faint, None

Pumped dry Yes (No)

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC ____

PURGING EQUIPMENT/I.D. #
- ☒ Bailer: 17-1
- ☐ Airlift Pump:
- ☐ Centrifugal Pump:
- ☐ Dedicated:
- ☐ Other:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-1
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-24	9-14-93	14:45	3	40	VOA	ACL	Gas/BTEX

REMARKS: D.O. = 3.63 ppm
Temp. = 20.2 C°

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-25

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 13.46 TOB — TOC
Total depth: 21.3 TOB — TOC
Date: 9-14-93 Time (2400): 10:10

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other:

CASING DIAMETER		GAL/ LINEAR FT.
☒	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other:

TD 21.3 - DTW 13.46 = 7.84 x Gal/Linear Foot 0.17 = 1.33 x Number of Casings 5 = Calculated Purge 6.66

DATE PURGED: 9-14-93 START: 10:13 END (2400 hr): 10:23 PURGED BY: SP

DATE SAMPLED: 9-14-93 START: 10:30 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
10:17	2.5	6.47	1021	67.3	Brown	Mod	None
10:20	4.5	6.33	1039	67.1	"	"	"
10:23	6.5	6.35	1026	67.0	"	"	"

Pumped dry Yes / (No)

Cobalt 0-100: Clear, Cloudy, Yellow, Brown
NTU 0-200: Heavy, Moderate, Light, Trace
Strong, Moderate, Faint, None

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC ____

PURGING EQUIPMENT/I.D. #
- ☒ Bailer: 17-1
- ☐ Airlift Pump:
- ☐ Centrifugal Pump:
- ☐ Dedicated:
- ☐ Other:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-1
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-25	9-14-93	10:30	3	40	VOA	HCl	Gas/BTEX

REMARKS: D.O. = 6.82 ppm.
Temp = 19.7 C°

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: MW-26

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: — TOB — TOC
Depth to water: 13.72 TOB — TOC
Total depth: 19.7 TOB — TOC
Date: 9-14-93 Time (2400): 14:53

Probe Type and I.D. #
- ☐ Oil/Water interface
- ☒ Electronic indicator
- ☐ Other;

CASING DIAMETER		GAL/ LINEAR FT.
☒	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other;

TD 19.7 - DTW 13.72 = 5.98 x Gal/Linear Foot 0.17 = 1.05 x Number of Casings 5 = Calculated Purge 5.05

DATE PURGED: 9-14-93 START: 14:55 END (2400 hr): 15:03 PURGED BY: SP

DATE SAMPLED: 9-14-93 START: 15:10 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR
14:57	1.5	6.64	1020	68.4	Brown	Heavy	Vapor
15:00	3.5	6.27	1022	68.4	↓	↓	↓
15:03	5	6.24	1022	68.4			

Pumped dry Yes (No)

Cobalt 0-100: Clear, Cloudy, Yellow, Brown
NTU 0-200: Heavy, Moderate, Light, Trace
Strong: Moderate, Faint, None

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: ____ TOB/TOC ____

PURGING EQUIPMENT/I.D. #
- ☒ Bailer: 17-2
- ☐ Airlift Pump:
- ☐ Centrifugal Pump:
- ☐ Dedicated:
- ☐ Other:

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-2
- ☐ Dedicated:
- ☐ Other:

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
MW-26	9-14-93	15:10	3	40	VOA	HCl	Gas/BTEX

REMARKS: D.O. = 3.46 ppm.
Temp = 19.1 C°

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD SERVICES/O and M REQUEST

SITE INFORMATION FORM

Identification

Project #: 330-06.12
Station #: 0608
Site Address: 17601 Hesperian Blvd. San Lorenzo
County: Alameda
Project Manager: Kelly Brown.
Requestor: Roger Hoffmore
Client: Arco
Client P.O.C.: Mike Whelan.
Date of request: 9-93

Project Type

- ☐ 1st Time visit
- ☐ Quarterly
  - ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th
- ☒ Monthly
- ☐ Semi-Monthly
- ☐ Weekly
- ☐ One time event
- ☐ Other:

Ideal field date(s): 2nd week of Month

Prefield Contacts/Permits

- ☐ Cal Trans
- ☐ County
- ☐ City
- ☐ Private
- ☐ Multi-Consultant Scheduling

Date(s):

Site Safety

Concerns

Field Tasks

☒ System Sampling ☐ System Start-up ☐ System Repair ☐ System Modification ☐ System Resample ☐ System Shut-down
☐ Tank Pull ☐ Soil Sampling ☐ Subcontractor Observation ☐ SPH Bailing
☐ Report required for: ☐ Data summary required for:

1.) DTW in wells MW-5, 7, 8, 9, 10, 11, 13, 25, E-1A
2.) Change Filter
3.) Sample system (Monthly = M, Quarterly = Q)

	INFL	EFFL
Gas/BTEX	M	M
C.O.D. (H_2SO_4 VOA)		Q
TSS (1 liter		Q
pH plastic)		Q

Note: Quarterly O&M work occurs January, April, July, October

MID samples will be taken when breakthrough is expected in the future.

(Please attach: Site Map, Process and Instrumentation Diagram, Site Safety Plan, Well logs, Other information as appropriate)

Budgeted hours: 6
Actual hours; On-Site: 4 Mob-de-Mob: 2

Comments, remarks, etc. from Field Staff (include problems encountered and out-of-scope work)

PACIFIC ENVIRONMENTAL GROUP, INC.

Completed by: Scott Pyle Date: 9-13-93

Checked by:

ARCO Products Company Division of AtlanticRichfieldCompany — 330-06.12 — Task Order No. 0608-91-5 — **Chain of Custody**

ARCO Facility no. 0608	City (Facility) San Lorenzo	Project manager (Consultant) Kelly Brown	Laboratory name Sequoia
ARCO engineer Mike Whelan	Telephone no. (ARCO) —	Telephone no. (Consultant) 408-441-7500	Fax no. (Consultant) 408-441-9102
Consultant name Pacific Environmental Group	Address (Consultant) 2025 Gateway #440 San Jose Ca. 95110		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH 624 EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ VOA ☐ Semi VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐
INFL		3		W		Y	HCl	9-13-93	12:05		X									
EFFL		3		W		Y	HCl	9-13-93	12:00		X									

Special detection Limit/reporting

Special QA/QC

Remarks

Lab number

Method of shipment

Turnaround time

- Priority Rush 1 Business Day ☐
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☒

Condition of sample: — Temperature received:

	Date	Time	
Relinquished by sampler	9-16-93	9:00	Received by
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory / Date / Time

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant

APPC-3292 (

Groundwater Extraction System
San Lorenzo ARCO 608
17601 Hesperian Boulevard
San Lorenzo, California
330-06.12
Revised: October 12, 1992

Name: Scott Pisle Date/Time: 9-13-93 9:00-12:30

Treatment System Readings

Effluent Totalizer (gallons)	02884736	Bag Filter INFL Pressure (psi)	6psi
Effluent Flowrate (gpm)	3 gpm	Carbon 1 INFL Pressure (psi)	5psi
E-1A Hourmeter (hours)	13887.9	MID-1 Pressure Pressure (psi)	6psi
Electric meter (kw-hrs)	07835	MID-2 Pressure (psi)	1psi
Sewer Level Overflowing?	No	EFFL Pressure (psi)	0psi
E-1A DTW (TOB) (feet) Time (09:21)	19.50 DTW	Spare Bag Filters On-site	Yes
Does Autodialer Call Office?	Yes	Does Pressure Switch Work?	Yes

Sample groundwater at E-1A, MID-1, and EFFL

Temperature (F)	E-1A	70.4	MID-1	70.3	MID-2	70.2	EFFL 70.4
pH (units)	E-1A	6.88	MID-1	6.57	MID-2	6.55	EFFL 6.59

1. Check all fittings and piping for leaks. (Initials) SP
2. Check control panel for discrepancies. (Initials) SP
3. Take DTW/DTL from all on-site wells. (Initials) SP
4. Inspect the condition of the secondary containment (Initials) SP

Comments *changed bag filter . . . . * swept secondary enclosure

Distribute a copy of this form to the project supervisor.

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-06.12 / 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo DATE: 9-13-93

CLIENT/STATION NO.: Arco 0608 FIELD TECHNICIAN: Scott Pike DAY OF WEEK: Monday

PROBE TYPE/ID No.
- ☐ Oil/Water IF/ ____
- ☒ H_2O level indicator ____
- ☐ Other: ____

Dtw Order	Well ID	Time	Surface Seal	Lid Secure	Gasket	Lock	Expanding Cap	Total Depth TOB (feet)	First Depth to Water (feet) TOB/TOC	Second Depth to Water (feet) TOB/TOC	SEPARATE-PHASE HYDROCARBONS (SPH): SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	COLOR: Fresh	Weathered	Gas	Oil	VISCOSITY: Lite	Medium	Heavy	LIQUID REMOVED (gallons): SPH / H_2O
2.	E-1A	9:21						—	19.50											
5	MW-5	9:36						~~13.95~~ ~~+8.9 SP~~	~~13.40~~ ~~+3.78 SP~~											
4	MW-7	9:33						18.9	13.78											
9	MW-8	9:50						21.7	12.70											
6	MW-9	9:37						18.7	11.87											
8	MW-10	9:45						22.95	12.01											
7	MW-11	9:42						19.2	12.66											
1	MW-13	9:01						23.4	15.09	✓										
12	MW-14	12:52						23.1	10.89											

Comments: *Well MW-14 — 4 inch J plugs will no longer secure well.... Replace 4 in plug with 3 in. plug where 3 inch casing attaches to 4 inch coupler.

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-06.12 330-06.15 LOCATION: 17601 Hesperian Blvd. San Lorenzo DATE: 9-13-93

CLIENT/STATION NO.: Arco 0608 FIELD TECHNICIAN: Scott Fiske DAY OF WEEK: Monday

PROBE TYPE/ID No.
- ☐ Oil/Water IF/ ____
- ☒ H_2O level indicator ____
- ☐ Other: ____

Dtw Order	Well ID	Time	Surface Seal	Lid Secure	Gasket	Lock	Expanding Cap	Total Depth TOB (feet)	First Depth to Water (feet) TOB/TOC	Second Depth to Water (feet) TOB/TOC	SEPARATE-PHASE HYDROCARBONS (SPH): SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	COLOR: Fresh	Weathered	Gas	Oil	VISCOSITY: Lite	Medium	Heavy	LIQUID REMOVED (gallons): SPH / H_2O
22	MW-15	15:15						23.5	12.35	✓	—									
21	MW-16	15:12						22.5	12.83	✓	—									
19	MW-17	15:07						23.5	13.66	✓	—									
18	MW-18	15:00						21.7	11.75	✓	—									
17	MW-19	14:57						21.6	11.16	✓	—									
16	MW-20	13:30						See	Comments below		—									
15	MW-21	13:22						21.9	11.63	✓	—									
14	MW-22	13:18						21.6	12.17	✓	—									
13	MW-23	13:07					✓	21.9	13.23	✓	—									

Comments: *MW-23 needed a 3 inch J plug substitute for the same reason as MW-14

*Well MW-20 was covered by new asphalt. uncovered well and found no water in well. MW-20 was filled in with gravel and silt.

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-06.12. 330-06 15 LOCATION: 17601 Hesperian Blvd. San Lorenzo DATE: 9-13-93

CLIENT/STATION NO.: Arco 0608 FIELD TECHNICIAN: Scott Rise DAY OF WEEK: Monday

PROBE TYPE/ID No.
- ☐ Oil/Water IF/ ____
- ☒ H_2O level indicator ____
- ☐ Other: ____

Dtw Order	Well ID	Time	Surface Seal	Lid Secure	Gasket	Lock	Expanding Cap	Total Depth (feet) TOB	First Depth to Water (feet) TOB/TOC	Second Depth to Water (feet) TOB/TOC	SEPARATE-PHASE HYDROCARBONS (SPH): SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	COLOR: Fresh	Weathered	Gas	Oil	VISCOSITY: Lite	Medium	Heavy	LIQUID REMOVED (gallons) SPH / H_2O
11	MW24	9:58						20.0	14.38											
3	MW-25	9:31						21.3	13.45											
10	MW26	9:54						19.7	13.70											
20	church well	15:09								13.42										

Comments: ____

SITE INFORMATION FORM

Identification

Project # 330-06.12

Location # 608

Site Address: 17601 Hesperian Blvd. San Lorenzo

County:

Project Manager: LG/DM

Requestor: JM

Client: ARCO

Client P.O.C.: Mike Whelan

Date of request: 8/13/92

Project Type

- ☐ 1st Time visit
- ☐ Quarterly
  - ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th
- ☒ Monthly
- ☐ Semi-Monthly
- ☐ Weekly
- ☐ One time event
- ☐ Other:

Ideal field date(s): 15th ± 3 days

Prefield Contacts/Permits

- ☐ Cal Trans
- ☐ County
- ☐ City
- ☐ Private
- ☐ Multi-Consultant Scheduling Date(s):

Site Safety Concerns

Field Tasks

☒ System Sampling ☐ System Start-up ☐ System Repair ☐ System Modification ☐ System Resample ☐ System Shut-dov
☐ Tank Pull ☐ Soil Sampling ☐ Subcontractor Observation ☐ SPH Bailing
☐ Report required for: ☐ Data summary required for:

(1) DTW in wells MW-5, MW-7 MW-8, MW-9, MW-10, MW-11, MW-13, E-1A
3) Change filter if necessary
3) Sample system (monthly = M, quarterly = Q)

	INFL	EFFL
Gas/BTEX	M	M
COD		Q
TSS		Q
pH		Q

(1) Note: Quarterly event to occur in January, April, July, Octo
(2) MID samples will be taken when breakthrough is expected in the future.

(Please attach Site Map, Process and Instrumentation Diagram, Site Safety Plan, Well logs, Other information as appropriate)

Budgeted hours: 6. | Actual hours; On-Site: Mob-de-Mob:

Comments, remarks, etc. from Field Staff (include problems encountered and out-of-scope work)

System not operating upon arrival. Changed Bag filte and restarted System 2:30pm.

Completed by: Scott Page Date: 7-20-93

PACIFIC ENVIRONMENTAL GROUP, INC. Checked by: PITS Update:

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-06.12 LOCATION: 17601 Hesperian Blvd San Lorenzo DATE: 7-20-93

CLIENT/STATION NO.: Arco 0608 FIELD TECHNICIAN: SP DAY OF WEEK: Tuesday

PROBE TYPE/ID No.
- ☐ Oil/Water IF _____
- ☒ H_2O level Indicator PH.
- ☐ Other: _____

Dtw Order	Well ID	Time	Surface Seal	Lid Secure	Gasket	Lock	Expanding Cap	Total Depth (feet)	First Depth to Water (feet) TOB/TOC	Second Depth to Water (feet) TOB/TOC	SEPARATE-PHASE HYDROCARBONS (SPH): SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	COLOR: Fresh	Weathered	Gas	Oil	VISCOSITY: Lite	Medium	Heavy	LIQUID REMOVED (gallons): SPH / H_2O
9	E-1A	14:30 / 16:08							12.10 Before Restart	After Restart 19.60										
8	MW-5	16:04							12.83	✓										
1	MW-7	15:30							13.08	✓										
7	MW-8	15:59							12.00	✓										
6	MW-9	15:55							10.18	✓										
5	MW-10	15:49							11.34	✓										
4	MW-11	15:44							12.00	✓										
3	MW-13	15:38							14.42	✓										
2	MW-25	15:34							12.74	✓										

Comments: Levels taken after system had been running one hour.

Groundwater Extraction System
San Lorenzo ARCO 608
17601 Hesperian Boulevard
San Lorenzo, California
330-06.12
Revised: October 12, 1992

Name: Scott Pisle Date/Time: 7-20-93 15:00 - 16:00

Treatment System Readings

Effluent Totalizer (gallons)	0268997	Bag Filter INFL Pressure (psi)	6 psi
Effluent Flowrate (gpm)	3.25 gpm	Carbon 1 INFL Pressure (psi)	5.25 psi
E-1A Hourmeter (hours)	1257.9	MID-1 Pressure Pressure (psi)	5 psi
Electric meter (kw-hrs)	06103	MID-2 Pressure (psi)	1 psi
Sewer Level Overflowing?	NO	EFFL Pressure (psi)	0 psi
E-1A DTW (TOB) (feet)	12.10 before Restart 1960 After Restart	Spare Bag Filters On-site	Yes
Does Autodialer Call Office?	Yes	Does Pressure Switch Work?	Yes

Sample groundwater at E-1A, MID-1, and EFFL

Temperature (F)	E-1A	67.3	MID-1	65.6	MID-2	65.7	EFFL 66.5
pH (units)	E-1A	6.50	MID-1	6.51	MID-2	6.42	EFFL ~~6.46~~ SP 6.50

1. Check all fittings and piping for leaks. (Initials) ✓ SP
2. Check control panel for discrepancies. (Initials) SP
3. Take DTW/DTL from all on-site wells. (Initials) SP
4. Inspect the condition of the secondary containment (Initials) SP

Comments

Distribute a copy of this form to the project supervisor.

SENT BY:PACIFIC ENVIRON. GRP. 07-22-93 06:50AM 5108250882→ 4084417539 # 5

ARCO Products Company ◇
Division of AtlanticRichfieldCompany

330-06.12 Task Order No. 608-91-5

Chain of Custody

ARCO Facility no. 0608 | City (Facility) San Lorenzo | Project manager (Consultant) Kelly Brown | Laboratory name Sequoia

ARCO engineer Mike Whelan | Telephone no. (ARCO) | Telephone no. (Consultant) 408-441-7500 | Fax no. (Consultant) 408-441-9102 | Contract number

Consultant name Pacific Env Group | Address (Consultant) 2025 Gateway Pl. #440 San Jose 95110

Method of shipment

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ VOA ☐ Semi VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐	C.O.D.	pH/TSS
INFL		3		X		X	HCl	7-20-93	17:15		X											
EFFL		3		↓		↓	HCl	↓	17:10		X											
EFFL		2		↓		↓	H₂SO₄	↓	↓												X	
EFFL		1		↓		↓	NP	↓	↓													X

Special detection Limit/reporting

Special QA/QC

Remarks
(pH analysis by 17.10 7-22-93)

Lab number

Turnaround time
Priority Rush 1 Business Day ☐
Rush 2 Business Days ☐
Expedited 5 Business Days ☐
Standard 10 Business Days ☒

Condition of sample: | Temperature received:

Relinquished by sampler [signature] | Date | Time 9:35 | Received by Michele Mavrouidis

Relinquished by Michele Mavrouidis | Date 7/21/93 | Time 10:25 | Received by

Relinquished by | Date | Time | Received by laboratory [signature] | Date 7/21/93 | Time 10:26am

Distribution: White copy — Laboratory; Canary copy — ARCO Environmental Engineering; Pink copy — Consultant
APPC-3[illegible] [illegible]-91)

SITE INFORMATION FORM

Identification

Project # 330-06.12

ation # 608

Site Address: 17601 Hesperian Blvd. San Lorenzo

County:

Project Manager: LG/DM

Requestor: JM

Client: ARCO

Client P.O.C.: Mike Whelan

Date of request: 8/13/92

Project Type

- ☐ 1st Time visit
- ☐ Quarterly
  - ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th
- ☒ Monthly
- ☐ Semi-Monthly
- ☐ Weekly
- ☐ One time event
- ☐ Other:

Ideal field date(s): 15th ± 3 days

Prefield Contacts/Permits

- ☐ Cal Trans
- ☐ County
- ☐ City
- ☐ Private
- ☐ Multi-Consultant Scheduling
  - Date(s):

Site Safety Concerns

Field Tasks

☒ System Sampling ☐ System Start-up ☐ System Repair ☐ System Modification ☐ System Resample ☐ System Shut-down

☐ Tank Pull ☐ Soil Sampling ☐ Subcontractor Observation ☐ SPH Bailing

☐ Report required for: ☐ Data summary required for:

(1) DTW in wells MW-5, MW-7 MW-8, MW-9, MW-10, MW-11, MW-13, E-1A, MW-2S
(2) Change filter if necessary
(3) Sample system (monthly = M, quarterly = Q)

	INFL	EFFL
Gas/BTEX	M	M
COD		Q
TSS		Q
pH		Q

(1) Note: Quarterly event to occur in January, April July, Octobe
(2) MID samples will be taken when breakthrough is expected in the future.

(Please attach: Site Map, Process and Instrumentation Diagram, Site Safety Plan, Well logs, Other information as appropriate)

Budgeted hours: 6

Actual hours; On-Site: 3 Mob-de-Mob: 1.5

Comments, remarks, etc. from Field Staff (include problems encountered and out-of-scope work)

Completed by: Scott Pisle Date: 8-16-93

PACIFIC ENVIRONMENTAL GROUP, INC.

Checked by: PITS Update:

ARCO Products Company ◆ Division of AtlanticRichfieldCompany 330-06.12 **Task Order No.** 608-91-5

Chain of Custody

ARCO Facility no. 0608	City (Facility) San Lorenzo	Project manager (Consultant) Kelly Brown	Laboratory name Sequoia
ARCO engineer Mike Whelan	Telephone no. (ARCO) —	Telephone no. (Consultant) 408-441-7500	Fax no. (Consultant) 408-441-7790
Consultant name Pacific Env. Group	Address (Consultant) 2025 Gateway Place #440 San Jose 95050		Contract number

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH Gas EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ Semi VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐		
INFL		3		W		X	HCl	8-16-93	14:30		X											
EFFL		3		W		X	HCl	8-16-93	14:25		X											

Method of shipment

Special detection Limit/reporting

Special QA/QC

Remarks

Lab number

Turnaround time

- Priority Rush 1 Business Day ☐
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☒

Condition of sample:		Temperature received:	
Relinquished by sampler	Date 8-17-93 Time 10:57	Received by Melissa Cuevas	
Relinquished by	Date Time	Received by	
Relinquished by	Date Time	Received by laboratory	Date Time

White copy — ARCO Environmental Engineering; Pink copy — Consultant

Groundwater Extraction System
San Lorenzo ARCO 608
17601 Hesperian Boulevard
San Lorenzo, California
330-06.12
Revised: October 12, 1992

Name: Scott Pisle Date/Time: 8-16-93 12:30 – 15:30 on-site

Treatment System Readings

Effluent Totalizer (gallons)	0279366	Bag Filter INFL Pressure (psi)	8 psi
Effluent Flowrate (gpm)	3 gpm	Carbon 1 INFL Pressure (psi)	6.75 psi
E-1A Hourmeter (hours)	13218.8	MID-1 Pressure Pressure (psi)	5.5 psi
Electric meter (kw-hrs)	07459	MID-2 Pressure (psi)	1.75 psi
Sewer Level Overflowing?	NO	EFFL Pressure (psi)	0 psi
E-1A DTW (TOB) (feet)	18.70	Spare Bag Filters On-site	Yes. 3 extra
Does Autodialer Call Office?	Yes	Does Pressure Switch Work?	Yes

Sample groundwater at E-1A, MID-1, and EFFL

Temperature (F)	E-1A 70.6	MID-1 70.1	MID-2 69.3	EFFL 70.8
pH (units)	E-1A 6.77	MID-1 6.35	MID-2 6.37	EFFL 6.38

1. Check all fittings and piping for leaks. (Initials) SP
2. Check control panel for discrepancies. (Initials) SP
3. Take DTW/DTL from all on-site wells. (Initials) SP
4. Inspect the condition of the secondary containment (Initials) SP

Comments Replaced Bag filter.

Swept secondary containment.

Distribute a copy of this form to the project supervisor.

FIELD REPORT

DEPTH TO WATER/SEPARATE-PHASE HYDROCARBON SURVEY

PROJECT No.: 330-06.12 LOCATION: 17601 Hesperian Blvd., San Lorenzo DATE: 8-16-93

CLIENT/STATION NO.: Arco 0608 FIELD TECHNICIAN: SP DAY OF WEEK: Monday

PROBE TYPE/ID No.
- ☐ Oil/Water IF
- ☑ H_2O level Indicator
- ☐ Other:

Dtw Order	Well ID	Time	Surface Seal	Lid Secure	Gasket	Lock	Expanding Cap	Total Depth (feet)	First Depth to Water (feet) TOB/TOC	Second Depth to Water (feet) TOB/TOC	SEPARATE-PHASE HYDROCARBONS (SPH): SPH Depth (feet) TOB/TOC	SPH Thickness (feet)	COLOR: Fresh	Weathered	Gas	Oil	VISCOSITY: Lite	Medium	Heavy	LIQUID REMOVED (gallons): SPH / H_2O
	E-1A	12:20							18.70	✓										
	MW-5	13:29							13.20	✓										
	MW-7	13:33							13.44	✓										
	MW-8	13:47							12.39	✓										
	MW-9	13:35		-					11.53	✓										
	MW-10	13:38							11.67	✓										
	MW-11	13:42							12.34	✓										
	MW-13	13:56							14.74	✓										
	MW-25	13:31							13.11	✓										

Comments:

SITE INFORMATION FORM

Identification

roject # 330-06.18
0608
te address: 17601 Hesperian
San Lorenzo
ounty: Alameda.
roject Manager:
equestor: Kelly Brown
lient: ARCO
lient P.O.C.: Mike Whelan
ate of request: 10-92

Project Type

- ☐ 1st Time visit
- ☒ Quarterly
  - ☐ 1st ☐ 2nd ☐ 3rd ☐ 4th
- ☐ Monthly
- ☐ Semi-Monthly
- ☐ Weekly
- ☐ One time event
- ☐ Other:

Ideal field date(s):

Prefield Contacts/Permits

- ☐ Cal Trans
- ☐ County
- ☐ City
- ☒ Private All Homeowners One week Notice
- ☐ Multi-Consultant Scheduling
  Date(s):

Purge Water Containment:

- ☐ Drums
- ☐ Treatment System
- ☐ Other Describe:

Field Tasks

] H_2O levels
] H_2O Sampling Sample 14 Domestic water Supply Wells
TPH-Gas/BTEX All Wells
] ll Development
] Other: use address (Number) as Sample I.D.

Describe task (i.e: Well groups and analytical params):

ivities occuring on site
remedial system construction, ongoing projects, etc.)

(Please attach: Site Map, Well Information Data, Site Safety Plan, Well logs as appropriate)

id hours:
Du.. nours; On-Site: 4
ob-de-Mob: 2

Site Safety

Wells	Concerns

- ☐ Flash Safety
- ☐ Flagman
- ☐ Cones
- ☐ Barricades
- ☐ No Turn/Lane Closed sign

Other:

Comments, remarks, etc. from Field Staff
(include problems encountered and out-of-scope work)

- ☐ All Wells secured

CIFIC ENVIRONMENTAL GROUP, INC.

Completed by: Scott Pisle Date: 9-16-93
Checked by: PITS Update:

ARCO Products Company Division of AtlanticRichfieldCompany — 330-06.18 — Task Order No. 608-92-5 — **Chain of Custody**

ARCO Facility no. 1608	City (Facility) San Lorenzo	Project manager (Consultant) Kelly Brown	Laboratory name Sequoia
ARCO engineer Mike Whelan	Telephone no. (ARCO) —	Telephone no. (Consultant) 408-441-7500	Fax no. (Consultant) 408-441-9102
Consultant name Pacific Environmental Group	Address (Consultant) 2025 Gateway Pl. #440 San Jose, 95110		Contract number

Method of shipment:

Special detection Limit/reporting:

Special QA/QC:

Remarks:

Lab number:

Turnaround time:
- Priority Rush 1 Business Day ☐
- Rush 2 Business Days ☐
- Expedited 5 Business Days ☐
- Standard 10 Business Days ☒

Sample I.D.	Lab no.	Container no.	Matrix: Soil	Matrix: Water	Matrix: Other	Preservation: Ice	Preservation: Acid	Sampling date	Sampling time	BTEX 602/EPA 8020	BTEX/TPH G 8015 EPA M602/8020/8015	TPH Modified 8015 Gas ☐ Diesel ☐	Oil and Grease 413.1 ☐ 413.2 ☐	TPH EPA 418.1/SM503E	EPA 601/8010	EPA 624/8240	EPA 625/8270	TCLP Metals ☐ Semi VOA ☐ VOA ☐	CAM Metals EPA 6010/7000 TTLC ☐ STLC ☐	Lead Org./DHS ☐ Lead EPA 7420/7421 ☐
TB-1		2		W		Yes	HCl	9-15-93	—		X									
590		3		↓		↓	↓	9-16-93	11:00		X									
642		3						9-16-93	15:45		X									
17197		3						9-16-93	12:30		X									
17200		3						9-15-93	15:00		X									
17203		3						9-16-93	12:45		X									
17302		3						9-16-93	15:15		X									
17348		3						9-15-93	11:20		X									
17349		3						9-16-93	15:30		X									
17352		3						9-15-93	11:50		X									
17353		3		↓		↓	↓	9-15-93	13:00		X									

Condition of sample:

Temperature received:

Relinquished by sampler	Date 9-17-93	Time 13:05	Received by Kate Anderson 9/17/93 13:05
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory — Date — Time

√590	Hacienda	Mr. & Mrs. Silva	276-1534	Knock first
√633	Hacienda	Roy	276-3860	Prive pump / OK if with [illegible]
642	Hacienda	Mari Corregidor	481-1063	Only if someone is home
√634	Hacienda	Mr, Mrs, Albright	278-6074	
√675	Hacienda	Mr & Mrs. Roberts	276-7389	(Dog: Cathy)
√17197	Via Magdalena	Lester Schrag	278-1904	
√17200	"	Church	278-2555	
√17203	"	Mrs. Tooles	276-6797	
√17348	Via Encinas	Leers	278-9059	
17349	Via Magdalena	M. E. Kast	278-1263	
17302	"	Betty, Terry Johnson	278-5987	
17371	"	John Manry	317-9724	(Dog: C.J.)
17372	"	Pimentels	278-6304	
√17393	"	James Whaley	278-5576	No Call Necessary

PACIFIC ENVIRONMENTAL GROUP, INC.
1601 Civic Center Drive., Suite 202
Santa Clara, California 95050
(408) 984-6536

PROJECT 330-06.18 JOB NO.
PREPARED BY SP DATE 9-93
CHECKED BY DATE
SCALE SHEET OF

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.18 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: ——

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☑ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☐ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☒ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Foot _____ = _____ x Number of Casings _____ = Calculated Purge _____ (Gal/Linear)

DATE PURGED: _____ START: _____ END (2400 hr): _____ PURGED BY: _____

DATE SAMPLED: _____ START: _____ END (2400 hr): _____ SAMPLED BY: _____

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 2 5°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR

Cobalt 0-100, Clear, Cloudy, Yellow, Brown | NTU 0-200, Heavy, Moderate, Light, Trace | Strong, Moderate, Faint, None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
TB-1	9-15-93		2	40	VOA	HCl	Gas/BTEX

REMARKS: _____

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.18 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: 590

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☐ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot _____ = _____ x Number of Casings _____ = Calculated Purge _____

DATE PURGED: _____ START: _____ END (2400 hr): _____ PURGED BY: _____

DATE SAMPLED: 9-16-93 START: 11:00 END (2400 hr): _____ SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR

Cobalt 0-100, Clear, Cloudy, Yellow, Brown | NTU 0-200, Heavy, Moderate, Light, Trace | Strong, Moderate, Faint, None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC

PURGING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☒ Dedicated: Tap in back Yard
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
590	9-16-93	11:00	3	40	VOA	HCl	Gas / BTEX

REMARKS: D.O. = 8.56 ppm.

Temp 17.6 C°

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.18 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: 633

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic Indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☐ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot _____ = _____ x Number of Casings _____ = Calculated Purge _____

DATE PURGED: _____ START: _____ END (2400 hr): _____ PURGED BY: _____

DATE SAMPLED: 9-15-93 START: _____ END (2400 hr): _____ SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR

COLOR: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
TURBIDITY: NTU 0-200, Heavy, Moderate, Light, Trace
ODOR: Strong, Moderate, Faint, None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC

PURGING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
633	9-15-93	0900	3	40	VOA	HCL	Gas / BTEX

REMARKS: D.O. = _____ ppm SP Unable to get pump in well to operat
Could not get bailer past the downhole
Temp = _____ °F SP piping

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.18 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: 634

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☐ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot _____ = _____ x Number of Casings _____ = Calculated Purge _____

DATE PURGED: _____ START: _____ END (2400 hr): _____ PURGED BY: _____

DATE SAMPLED: _____ START: _____ END (2400 hr): _____ SAMPLED BY: _____

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR

Pumped dry Yes / No

Cobalt 0-100, Clear, Cloudy, Yellow, Brown | NTU 0-200, Heavy, Moderate, Light, Trace | Strong, Moderate, Faint, None

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC

PURGING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
	9-193		3	40	VOA	HCl	Gas / BTEX
	Not Sampled.						

REMARKS: Well inaccessable - No Sample taken during this event. Kerry Winemiller O.K.'d this

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.18 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: 642

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic Indicator _____
- ☐ Other: _____

CASING DIAMETER		GAL/ LINEAR FT.
☐ 2	———	0.17
☐ 3	———	0.38
☐ 4	———	0.66
☐ 4.5	———	0.83
☐ 5	———	1.02
☐ 6	———	1.5
☐ 8	———	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other: _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot _____ = _____ x Number of Casings _____ = Calculated Purge _____

DATE PURGED: _____ START: _____ END (2400 hr): _____ PURGED BY: _____

DATE SAMPLED: 9-16-93 START: 15:45 END (2400 hr): _____ SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR

Pumped dry Yes / No

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
642	9/16/93	15:45	3	40	VOA	HCl	Gas / BTEX

REMARKS: D.O. ~ 7.14 ppm.
Temp ~ 17.1 C°

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.18 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: 675

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐ 2	———	0.17
☐ 3	———	0.38
☐ 4	———	0.66
☐ 4.5	———	0.83
☐ 5	———	1.02
☐ 6	———	1.5
☐ 8	———	2.6

SAMPLE TYPE
- ☐ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot _____ = _____ x Number of Casings _____ = Calculated Purge _____

DATE PURGED: _____ START: _____ END (2400 hr): _____ PURGED BY: _____

DATE SAMPLED: _____ START: _____ END (2400 hr): _____ SAMPLED BY: _____

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR

Cobalt 0-100, Clear, Cloudy, Yellow, Brown | NTU 0-200, Heavy, Moderate, Light, Trace | Strong, Moderate, Faint, None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
	9-93		3	40 ml	VOA	HCl	Gas / BTEX

REMARKS: Well inaccessable - No Sample taken during this event. Keith Wineteer O.K.'d this

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.18 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: 17197

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot _____ = _____ x Number of Casings _____ = Calculated Purge _____

DATE PURGED: _____ START: _____ END (2400 hr): _____ PURGED BY: _____

DATE SAMPLED: 9-16-93 START: 12:30 END (2400 hr): _____ SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR

Cobalt 0-100: Clear, Cloudy, Yellow, Brown
NTU 0-200: Heavy, Moderate, Light, Trace
Strong, Moderate, Faint, None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☒ Dedicated: Tap in Front Yard
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
17197	9-16-93	12:30	3	40	VOA	HCl	Gas / BTEX

REMARKS: D.O. = 12.50 ppm. D.O. using a chemets tube showed the D.O. value equal to 6-8 ppm range.
Temp = 19.5 C°

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.18 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: 17200

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot _____ = _____ x Number of Casings _____ = Calculated Purge _____

DATE PURGED: _____ START: _____ END (2400 hr): _____ PURGED BY: _____

DATE SAMPLED: 9-15-93 START: 15:00 END (2400 hr): _____ SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR

Cobalt 0-100 / Clear / Cloudy / Yellow / Brown
NTU 0-200 / Heavy / Moderate / Light / Trace
Strong / Moderate / Faint / None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-2
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
17200	9-15-93	15:00	3	40	VOA	HCl	Gas / BTEX

REMARKS: D.O. = 2.43 ppm
Temp = 18.7 C°

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.18 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: 17203

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot _____ = _____ x Number of Casings _____ = Calculated Purge _____

DATE PURGED: _____ START: _____ END (2400 hr): _____ PURGED BY: _____

DATE SAMPLED: 9-16-93 START: 12:45 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (°F)	COLOR	TURBIDITY	ODOR

COLOR: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
TURBIDITY: NTU 0-200, Heavy, Moderate, Light, Trace
ODOR: Strong, Moderate, Faint, None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☒ Dedicated: Tap in Rock Yard
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
17203	91693	12:45	3	40	VOA	HCl	Gas / BTEX

REMARKS: D.O. = 4.26 ppm
Temp = 17.3°

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.18 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: 17302

IENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle.

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☐ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot _____ = _____ x Number of Casings _____ = Calculated Purge _____

DATE PURGED: _____ START: _____ END (2400 hr): _____ PURGED BY: _____

DATE SAMPLED: 9-16-93 START: 15:15 END (2400 hr): _____ SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR

Cobalt 0-100, Clear, Cloudy, Yellow, Brown | NTU 0-200, Heavy, Moderate, Light, Trace | Strong, Moderate, Faint, None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☒ Dedicated: Tap on Side of house
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
17302	9-16-93	15:15	3	40	VOA	HCl	Gas / BTEX

REMARKS: D.O. = 4.61 ppm
Tap = 17.7 C°

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.18 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: 17348

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot _____ = _____ x Number of Casings _____ = Calculated Purge _____

DATE PURGED: — START: _____ END (2400 hr): _____ PURGED BY: _____

DATE SAMPLED: 9-15-93 START: 11:20 END (2400 hr): — SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR

COLOR: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
TURBIDITY: NTU 0-200, Heavy, Moderate, Light, Trace
ODOR: Strong, Moderate, Faint, None

Pumped dry Yes / No

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: 17-4
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
17348	9-15-93	11:20	3	40	VOA	HCl	Gas / BTEX

REMARKS: D.O. = 2.90 ppm
Temp. = 18.1 °C

SIGNATURE: _____

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.18 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: 17349

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water Interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER / GAL/LINEAR FT.

☐	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE

- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot _____ = _____ x Number of Casings _____ = Calculated Purge _____

DATE PURGED: _____ START: _____ END (2400 hr): _____ PURGED BY: _____

DATE SAMPLED: 9-16-93 START: 15:30 END (2400 hr): _____ SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR

Pumped dry Yes / No

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D.

- ☐ Bailer: _____
- ☒ Dedicated: Tap in back of house
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
17349	9-16-93	15:30	3	40	VOA	HCl	Gas / BTEX

REMARKS: D.O. = 4.26 ppm
Temp = 18.1 C°

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.18 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: 17371

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic Indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐ 2	.....	0.17
☐ 3	.....	0.38
☐ 4	.....	0.66
☐ 4.5	.....	0.83
☐ 5	.....	1.02
☐ 6	.....	1.5
☐ 8	.....	2.6

SAMPLE TYPE
- ☐ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot _____ = _____ x Number of Casings _____ = Calculated Purge _____

DATE PURGED: _____ START: _____ END (2400 hr): _____ PURGED BY: _____

DATE SAMPLED: _____ START: _____ END (2400 hr): _____ SAMPLED BY: _____

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (µmhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR

Pumped dry Yes / No

Cobalt 0-100, Clear, Cloudy, Yellow, Brown | NTU 0-200, Heavy, Moderate, Light, Trace | Strong, Moderate, Faint, None

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
	9-93 Not Sampled		3	40	VOA	HCl	Gas / BTEX

REMARKS: Home owner indicated prior to 2nd quarter event that he doesn't want people around his house. He fears a P.E.G. employee would possibly ~~injure~~ injure themselves and he would be liable.

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.18 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: 17372

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☐ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot _____ = _____ x Number of Casings _____ = Calculated Purge _____

DATE PURGED: _____ START: _____ END (2400 hr): _____ PURGED BY: _____

DATE SAMPLED: 9-15-93 START: 11:50 END (2400 hr): ← SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR

Pumped dry Yes / No

Cobalt 0-100, Clear, Cloudy, Yellow, Brown | NTU 0-200, Heavy, Moderate, Light, Trace | Strong, Moderate, Faint, None

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC _____

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☒ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
17372	9-15-93	11:50	3	40	VOA	HCl	Gas / BTEX

REMARKS: D.O. = 3.17 ppm
Temp. = 18.6°

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.

FIELD DATA SHEET

WATER SAMPLE FIELD DATA SHEET

PROJECT No.: 330-06.18 LOCATION: 17601 Hesperian Blvd. San Lorenzo WELL ID #: 17393

CLIENT/STATION No.: Arco 0608 FIELD TECHNICIAN: Scott Pisle

WELL INFORMATION

Depth to Liquid: _____ TOB _____ TOC
Depth to water: _____ TOB _____ TOC
Total depth: _____ TOB _____ TOC
Date: _____ Time (2400): _____

Probe Type and I.D. #
- ☐ Oil/Water interface _____
- ☐ Electronic indicator _____
- ☐ Other; _____

CASING DIAMETER		GAL/ LINEAR FT.
☐	2	0.17
☐	3	0.38
☐	4	0.66
☐	4.5	0.83
☐	5	1.02
☐	6	1.5
☐	8	2.6

SAMPLE TYPE
- ☒ Groundwater
- ☐ Duplicate
- ☐ Extraction well
- ☐ Trip blank
- ☐ Field blank
- ☐ Equipment blank
- ☐ Other; _____

TD _____ - DTW _____ = _____ x Gal/Linear Foot _____ = _____ x Number of Casings _____ = Calculated Purge _____

DATE PURGED: _____ START: _____ END (2400 hr): _____ PURGED BY: _____

DATE SAMPLED: 9-15-93 START: 13:00 END (2400 hr): _____ SAMPLED BY: SP

TIME (2400 hr)	VOLUME (gal.)	pH (units)	E.C. (umhos/cm @ 25°C)	TEMPERATURE (° F)	COLOR	TURBIDITY	ODOR

Pumped dry Yes / No

Color: Cobalt 0-100, Clear, Cloudy, Yellow, Brown
Turbidity: NTU 0-200, Heavy, Moderate, Light, Trace
Odor: Strong, Moderate, Faint, None

FIELD MEASUREMENTS AT TIME OF SAMPLE, AFTER RECHARGE:

DTW: _____ TOB/TOC

PURGING EQUIPMENT/I.D. #
- ☐ Bailer: _____
- ☐ Airlift Pump: _____
- ☐ Centrifugal Pump: _____
- ☐ Dedicated: _____
- ☐ Other: _____

SAMPLING EQUIPMENT/I.D. #
- ☒ Bailer: T-7
- ☐ Dedicated: _____
- ☐ Other: _____

SAMP. CNTRL #	DATE	TIME (2400)	No. of Cont.	SIZE	CONTAINER	PRESERVE	ANALYTICAL PARAMETER
17393	9-15-93	13:00	3	40	VOA	HCl	Gas / BTEX

REMARKS: D.O. = 1.96 ppm.
Temp = 17.7 C°

SIGNATURE: Scott Pisle

PACIFIC ENVIRONMENTAL GROUP, INC.